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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

TO THE FRIENDS OF AGRICULTURE.

THE present number commences the Ninth volume of the Cultivator; and we are unwilling to omit this opportunity of expressing to our friends and the agricultural public generally, our deep sense of the kindness with which they have viewed our efforts to improve and advance our husbandry; of acknowledging our obligations for the liberal and unprecedented support our journal has received; and in particular, of thanking, most sincerely, our able and numerous list of contributors, for the many valuable articles that have given such varied interest to our past volumes. If a record of the opinions and practice of some three or four hundred of the most scientific and practical farmers of our country, on all the great topics connected with the agriculture of every part of it, can render a journal valuable to farmers, then may we believe that the Cultivator is not wholly unworthy of the commendation or the patronage it has received. To furnish a work that, in every respect, shall please every one, is what we can scarcely hope or expect; but we intend to publish a journal in which every one shall find something interesting and instructive; something to enable him to improve the soil and the mind; something that shall "elevate the standing and character of the American cultivators of the soil." We enter upon a new volume with increased means and renewed determinations to make the Cultivator more worthy of the distinguished favor with which it has been received. Our facilities for intelligence, important to the farmer, are rapidly spreading; the number of our contributors, at home and abroad, is constantly increasing; our means for multiplying and improving our illustrations, are greatly augmented; and while the general course and character of the paper will remain the same, no exertion on the part of the conductors will be spared to add to its value and usefulness.

To all who have aided us in obtaining subscribers for the Cultivator—to those contributors in every part of our country, who have forwarded to us the rich results of their experience—to those Postmasters in every section of the Union, who have forwarded us the names of subscribers, or cash—to those professional men who have aided us by their application of science to agriculture, in our pages—to those conductors of the public press, who have kindly noticed our journal, and thus brought it to the knowledge of their readers, our grateful acknowledgments are due; and to all these, and to all who take an interest in the great objects to which the Cultivator is devoted, we beg leave to proffer our congratulations, and to wish them a happy, thrice happy, New Year.

WE should be glad to engage the services of a few respectable and trustworthy men, as travelling agents for the Cultivator.

TO OUR SUBSCRIBERS.

AGREEABLY to the notice given last month, we forward this number of THE CULTIVATOR to all our old subscribers, except in cases where a discontinuance has been ordered. Those who do not wish to be considered subscribers to the Ninth volume, should immediately give notice to that effect to the Postmaster where they receive their paper, whose duty it will be to communicate it to us, free of expense; and those who wish the paper continued to them, and who have not yet paid for it, should, with as little delay as may be convenient, hand their dollar to the Postmaster, or the Agent, if there is one, in the vicinity where they reside.

TO POSTMASTERS AND AGENTS.

POSTMASTERS and Agents will be entitled to the commissions allowed by the terms of the paper, on all monies they may forward us, whether from new or old subscribers; and we shall be greatly obliged by any efforts they may be pleased to make in collecting monies or names for the ninth volume.

☞ Postmasters will particularly oblige the publisher, by giving prompt notice of any papers which should be discontinued, either from their not being called for, or from the inability of those to whom they are addressed to pay for them.

NEW-YORK STATE AGRICULTURAL SOCIETY.

THE annual meeting of the New-York State Agricultural Society will be held at the Lecture Room of the Young Men's Association, in the Exchange, in the city of Albany, on *Wednesday, the 19th of January*, 1842, at 10 o'clock, A. M. The annual Address, by the President of the Society, JOEL B. NOTT, Esq., will be delivered in the Assembly Chamber of the Capitol, on the evening of the same day.

On the day preceding the annual meeting, (Jan. 18,) the Exhibition of Butter and Cheese, together with samples of Field Crops, will be held in room No. 10, second floor of the Exchange, at which place must be deposited, before 9 o'clock, A. M., all parcels offered for premiums, together with the statements required by the regulations heretofore published; and at 10 o'clock, A. M., the several viewing committees will commence the performance of their duties. The following are the committees:

On Butter—Alex. Walsh and G. B. Richards of Rensselaer, Robert Denniston of Orange, M. D. Burnett of Onondaga, and J. M. Sherwood of Cayuga.

On Cheese—C. N. Bement and E. R. Satterlee of Albany, John Caldwell of Orange, Benj. P. Johnson of Oneida, and Samuel Perry, of New-York.

On Wheat, Rye, and Barley—Anthony Van Bergen of Greene, Rawson Harmon, jr. of Monroe, Orville Hungerford of Jefferson, William Parsons of Niagara, and William A. S. North, of Schenectady.

On Indian Corn, Oats, and Peas—Henry D. Grove and Henry Holmes of Washington, Howell Gardner of Saratoga, Pomeroy Jones of Oneida, and Joseph Hastings of Rensselaer.

On Root Crops—J. P. Beekman, of Columbia, Francis Rotch of Otsego, G. V. Sacket of Seneca, John Sanford of Onondaga, and L. B. Langworthy of Monroe.

The above named committees are requested to meet at the office of the Recording Secretary, (Cultivator office,) at 9 o'clock, A. M., on the 18th, at which time the Executive Committee will proceed to fill any vacancies which may occur.

LUTHER TUCKER, Rec. Sec'y.

☞ Editors throughout the state are requested to publish the above.

ALBANY CO. AGRICULTURAL SOCIETY.

THE annual meeting of the Albany Co. Agricultural Society will be held at the City Hall, in Albany, on Wednesday, the 12th of January, 1842, at 11 o'clock, A. M. A punctual attendance, not only of the members, but of all who wish to become members, is earnestly solicited.

THOS. HILLHOUSE,
Dec. 25. 1841. Rec. Sec'y.

ACKNOWLEDGMENTS.

OUR thanks are due to those friends, from whom we have received, during the past month, the following:

To unknown friends, for copies of *Gen. Tallmadge's Address* before the American Institute, at its late Fair.

To WILLIAM KENRICK, Newton, Mass., for a copy of his *Descriptive Catalogue* of Select Fruits, Trees, Shrubs, Flowers, &c.

To ROBERT ALEXANDER, Esq., Hall Farm, Sherbroke, L. C., for a No. of the Edinburgh newspaper, "*The Witness*," containing an account of the Highland Society's Show of 1841, and a history of the Alpaca.

To CHESTER MOSES, Esq., of Marcellus, for a small parcel of his *Bakewell Potatoes*. We have tried them, and think them fully equal to the character he gives them, as a baking potatoe.

To their respective Editors, for regular files of the London weekly agricultural papers, *The New Farmers' Journal*, and *The Mark-Lane Express*.

To the publisher, D. O. PROUTY, Philadelphia, for the *Agricultural Almanac*, containing a variety of useful notes on farming and gardening.

To our friend at Thompson, Conn., for the Report of the R. I. Ag. Society, on Butter, of which we shall avail ourselves hereafter.

We have also received by the steamer Columbia, which arrived at Boston on the 21st Dec., *The Quarterly Journal of Agriculture*, for December, *The Veterinarian*, for Oct., Nov., and Dec., and Johnson's *Farmers' Encyclopedia*, Parts I., II., III., and IV.

GREAT YIELD OF CORN.

WE find in the "Union Agriculturist," a communication from Col. Joel Walker of Belvidere, Ill. giving an account of corn raised by him the past year. The kinds selected for the experiment were the Chinese Tree corn, 12 rowed; Yellow dent, 12 rowed; and N. Jersey, 8 do.

"The ground was highly manured at an expense of $3 per acre, lightly plowed and otherwise prepared in the ordinary manner. The seed was planted in hills four feet apart; number of kernels to the hill not remembered. The crop is harvested, and the result is as follows:

Chinese Tree Corn, 169 1-2 bushels shelled, to the acre.
Yellow Dent,..... 170 " " "
New-Jersey, ... 99 3-4 " " ""

To be sure there was no mistake, each parcel was measured twice; and as the editor of the Agriculturist has vouched for its accuracy, it may be considered one of the most enormous yields on record. Col. Walker also planted a small quantity of the Brown corn; and from its fine appearance and yield, expresses the opinion "that it will one day supercede every other variety." Such yields of corn as this, and some of those recorded in our December number, for which premiums were awarded by our county societies, will make Kit Cornhill, who in his communication in our last, "insinivated" his doubts of the reality of such crops, open his eyes wider than ever.

DOMESTIC FOWLS IN WINTER.

ONE of the greatest errors that prevails in the management of the domestic fowl, and one which must be destructive of all profit, is the common practice of leaving them to "shirk for themselves," during the winter months. There is no animal on the farm that better repays good keeping than the hen, and with it, there is none that affords so much profit on the capital employed. The hen should have a close warm roost, for there are few creatures that suffer more from the cold than fowls; they should have a box of gravel, sand, ashes, &c. for them to roll and dust themselves in, to prevent the attacks of those insects to which fowls are subject; they should have access to pulverized limestones or limestone gravel, as this will give material for shell, and contribute to the health of hens; they should have abundance of water, clean and pure, for few animals will drink more frequently or eagerly than hens, if water is within their reach; and no one need expect healthy fowls, or a plentiful supply of eggs, who does not pay strict attention to their supply of food. Indian corn, peas, buckwheat, oats, or barley, may be fed to fowls. Potatoes, steamed or boiled, are excellent food for them, but must be fed while warm, as fowls will not eat cold potatoe, unless driven to it by hunger. Fowls should have access to a warm yard in the sunny days of winter, as warmth is particularly invigorating to them. If confined for any time in a close ill ventilated room, they will become diseased and feeble, and will require extra attention to repair the evil generated.

European Agriculture.

STATE OF AGRICULTURE IN NORMANDY.

It is interesting to the farmer to know how the tiller of the soil in other parts of the world conducts his operations, what his course of crops and modes of culture are, what his implements and animals, and what his domestic and social condition is. With the intention of gratifying this laudable feeling, we shall give a few extracts on the agriculture of Normandy, a province of France, from a paper in the Quarterly Journal of Agriculture for June, 1841.

Normandy is a province of France, divided into five Departments, and containing about 2,700,000 inhabitants. It differs from most of the southern and eastern parts of France in many important particulars. "Instead of extensive tracts of tillage, without any visible subdivisions to make out the different ownerships, and without trees, except the formally trimmed ones on the road side, Normandy is a continued series of well timbered farms and fine forests of surpassing beauty, interspersed with corn fields of small extent, orchards and meadow or grazing land."

The soil in Normandy is considered the richest in France, in many places highly calcareous, and in general well adapted to cultivation. The farms average about sixteen acres each in extent, and are held under leases of the usual term of nine years. But about one-half of the farms are held by the proprietors; and these proprietors are in a majority of instances farmers of the lowest class, or those who take their own produce to market, and at home live as poor as it is possible to imagine. The following extract will show what the living of the French peasant is:

"Many of this class, (the small farmers) like common laborers, dine upon a few apples or pears, and a bit of bread, without the formality of sitting down at table, and are content with a drink of their own homemade miserable cider. It is not easy for an Englishman [or an American] to conceive how a man can work hard upon the washy diet so general in France. We have seen men cutting up wood for fuel, (which is hard work,) from morning till night, and in the severest winter season, without more nutritious food than indifferent fruit, and a little bread; the soup taken, perhaps, for supper at home, or for early breakfast, is, if possible, worse as a means of support, for it consists merely of cabbage and hot water, with a little grease or kitchen stuff; it distends the stomach with wind, and therefore is totally unsuited to a working man, who should have solid, not liquid diet."

Much cannot be said in favor of the Norman sheep husbandry, as there is little or no free range for them, and they are kept in small lots of three, four, or half a dozen, and usually tied by the legs together, even when they have lambs, a course incompatible with thrift, "and altogether a worse description of sheep cannot be imagined." Attempts are making to improve them by the introduction of the Leicester and South Down.

In the management of their cows and dairies the Normans do rather better, and the quality of their cream and butter cannot be surpassed. The cream alone is churned (not the milk as in some of the Dutch dairies,) and this operation is performed twice a week, so that the cream stands only a short time. A sweet grass pasture in summer, and sainfoin hay in the winter is considered the best for butter. Beets are sometimes given pretty freely in winter, but though this food increases the milk, it does not improve the butter, and with limited exceptions, neither beets, potatoes, or turneps are given to the cows that yield the best butter. It is found by experience that "the application of dung imparts in *spring time* valuable qualities to dairy pasturage, but the grasses in summer give, on dunged land, a rank flavor to butter."

The Norman dairymen insist that dairy houses should have a northern aspect at all times, as a south wind is prejudicial to milk; that cream should not be left in the milk room, as they mutually exert a pernicious effect on each other; that the floor should be flagged and washed in summer, to preserve coolness; that in the winter the milk should be strained into pans as soon as possible after milking, while in the summer the cooler it can be made, the better it is for the cream. Pans of common earthenware, are preferred to any others, having been found superior even to porcelain.

"The cream is skimmed twice a day generally, sometimes three times, and care is taken always not to leave it too long on the milk. Twenty-four hours, (sometimes forty-eight,) in summer elapse before the first creaming, and the cream is allowed to lie as short a time as possible before churning. By day the cows are turned out, and at night kept in stables and supplied with sainfoin hay, which is admirable for dairy purposes."

The breed of cows most common and the most esteemed in Normandy, resemble the Alderney, and as this province is adjacent to Alderney, Jersey, and Guernsey, as well as Brittany, there is little doubt of the identity of the Alderney and Norman breeds. The Agr. Association of Normandy have imported from England some fine Short Horn bulls and cows, with the intention of improving the stock of cattle. There is in Normandy a coarse hairy breed of cattle which are much used for the plow and cart, "and four or five of these bullocks or oxen, with three or two horses, make the teams which are extensively used in Normandy."

In the dairy districts the heifer calves are usually reared, while the bull calves are fattened for the market. In some places they are fattened on skim milk, and in others on new milk; and in some districts bread, converted into a kind of pap, is added to the milk to facilitate the process. The Norman hog is of the worst possible description as to form; but when fattened the flavor of the pork, particularly the bacon and hams, is good, and the meat firm.

Centuries ago, Normandy was the country from which the flower of European chivalry derived their best horses. The breed was then large, active and powerful; but although still active and hardy, it has degenerated in size so much, that the Norman horse is now one of the smallest of European breeds. Of this we have sufficient proof in the small size and hardy character of the French Canadian horse, which is in every respect a true Norman animal. They rarely attain fifteen hands in height, are short necked, have good fore legs, but frequently imperfect hind ones, but as a breed will go faster and do more work than their appearance would at first indicate. Attempts are making to improve the Norman horse by crosses with the best English blood, for the purpose of furnishing horses for the cavalry service; and one of the Government Haras, or stations for stallions provided by the government, is located at St. Lo. At De Pin, are kept 500 horses and mares. and at St. Lo, about 120 stallions.

The French government do for the provinces, what associations or individuals among us do for agriculture; it furnishes funds for agricultural societies, plowing matches, &c. and the latter are held by authority of the state. Not long since one was held in the commune of Augerville, for which 1,000 francs were appropriated by government, and the proceedings were as follows:

"The ground being marked out by stakes at equal distances, and five judges appointed, sixteen plows came upon the ground: of these, fourteen had a pair of horses each, one a pair of oxen, and one a single horse. Nine of these plows were of the Norman form. After having plowed a field which had no particular difficulties, the teams were removed to another full of heath and broom, and the competitors were allowed the use of an additional horse or bullock. Out of the sixteen which had plowed in the free and open field, only nine appeared on the second trial. In this unbroken and rough field many failures were soon apparent; some stopped short before they had well turned a furrow, seeing that the work was above the power of their cattle or their plows; others stood out longer but made very bad work, and two plows only overcame the difficulties under which the others failed. One of these was a new plow called the Grange plow, and the other the Dombasle plow, and to these two, and the one horse plows, the three prizes were awarded."

The Grange plow is described as having these advantages:—

"1st. It works of itself, not requiring the hand of a plowman either to enter the sock into the land, or to keep it in its true direction; a driver only is necessary.

2d. It can be set at any depth, and turns over the furrow slices at equal and regular depth.

3d. It moves as easily even on very sloping land as on a flat.

These effects are produced by a simple kind of mechanism, which can be applied at the expense of about twelve francs, to any common plow."

But the improved Dombasle plow is the general favoritte among the best French farmers. It is modelled from the Scotch plow of Small, but with the defects of that corrected, and is furnished with wheels, as is also the Grange plow.

There is in the paper alluded to a sketch of the system of farming adopted by M. du Moncel, near Cherbourg, on his farm of about 800 acres. M. M. makes potatoes the base of his system of culture, using the drill plow and horse hoe. He has tried turneps and carrots, but has rejected these for the potato, "since though the first roots are the most productive, the potato is twice as nutritive, (comparing equal bulks) besides its increased value as an article of human sustenance." • • • "After various experiments M. Moncel has determined on a course of eight years, divided into equal periods; in the first four years, he has successively potatoes, barley, clover, and wheat; in the second, buckwheat, colza, wheat, and oats." Of the artificial grasses he gives a preference to lucerne, though he has also vetches and red clover. His potatoes are a large yellow, early variety, a red, and a large white for swine. He has tried some twenty kinds, but experience proved these to be the best.

A small stream passes through the yard of M. Moncel, which is made to work machinery for thrashing and cleaning his grain; grinding his barley, wheat, and buckwheat; converting his straw into chaff; and slicing potatoes, carrots, &c. Thus without leaving the yard, the grain is reduced to flour and bran from the sheaf, and the straw cut for cattle. From this use of power, our farmers might take a useful hint, and in addition to the above operations, the same power might be made to saw the wood of a family, and crush the corn with the cob for the stock.

BEET SUGAR.

M. Chevalier has lately published at Paris, a valuable memoir on the present state of the beet sugar manufacture in Europe. From this it appears that in France there are 389 factories, making this year, ninety millions pounds of sugar. That Belgium produces sixteen millions; the German Union, thirty millions; and Austria the same; making in these countries a production of about one hundred and seventy milions of pounds. We do not learn the quantity of cane sugar imported into France; but Belgium imports sixteen millions; the German Union sixty millions, and Austria one hundred and ten millions. Great improvements have been made in the manufacture, and at the great manufactory of M. Dombasle ten per cent of fine sugar is easily obtained. But even this beet sugar is adulterated with potato sugar, and M. Chevalier asserts that it is more difficult to procure in Paris any quantity, however small, of pure cane sugar, than an ounce of genuine salt, or a glass of simple grape juice.

BOKKARA OR GIANT CLOVER.

At the meeting of the Yorkshire Agricultural Society, a premium was awarded to W. Stickney, for some of this clover, and of which he gave the following description: "The dried plant now exhibited is the growth of the year 1840, being the second year after sowing; it attained the height of fifteen and a half feet. The plant in blossom is of the present year's growth, (1841,) near ten feet high, and still advancing. The shorter plants are from seeds sown in May last, but did not vegetate until the beginning of June; they are therefore the growth of two months, and are now growing at the rate of something more than an inch in twenty-four hours; and it is supposed they are now in a proper state to be cut for soiling. If allowed to perfect its seed it is a biennial plant."

RICH MILK.

In a late number of the Farmer's Magazine is a communication from a Lancashire farmer, from which we take the following:—"I have a cow in my stock which has had five calves, two of which she has dropped since she came into my possession. She is now giving not less than 26 quarts of milk daily, and this appearing of superior richness, induced me to try what weight of butter her milk for seven days would give; the trial was completed yesterday, and the butter weighed 22 lbs. 3 1-2 ounces. I had a cow ten years ago which gave 20 lbs. 6 ounces in a week." This is, to say the least of it, equal to Col. Jaques' celebrated Cream Pot breed.

FLEMISH BARLEY.

At a late monthly meeting of the Royal English Agricultural Society, "the Rev. W. L. Rham, exhibited specimens of Flemish Winter Barley, of which 11 1-2 quarters per acre were reaped, near Ghent, in 1840." The quarter being eight bushels, the yield reaches the enormous amount of ninety-two bushels per acre. This barley was two rowed. Mr. Rham also presented specimens of another variety of Brabant barley of six rows, straw very long and thick, and which in productiveness fell not much short of the foregoing. This too was a winter barley, a kind not cultivated in the United States

NEW METHOD OF WORKING FOUR HORSES

At a late plowing match for experimenting on the qualities of various plows, held at Rozelle, by the Ayrshire Agricultural Association, it became necessary to use four horses, and to test the force exerted, two dynamometers were required. The report thus describes the manner in which this was accomplished:

"In treating of the draft of the horses, it may be useful to notice an expedient that was adopted to measure heavy implements requiring a draft of eighty stones, while the scale of the dynamometers individually extended only to seventy stones. The horses were yoked two and two to the ends of a runner chain, which was passed round an iron sheave [pulley wheel] attached to the plow's bridle. The hind pair of horses were yoked to the short end of the chain, while the foremost pair were yoked to the other end, lengthened out sufficiently to give freedom of action, and each pair drew by a set of common swingtrees, with a dynamometer attached to each set of trees. In this manner the two dynamometers were found to indicate, with all the precision that could be desired, that equal force was exerted by each pair of horses, the sum of the forces being the real draft of the implement. This method of yoking four horses, be it observed, is one of the best now employed. It is simple and effective, equalizing the draft to the whole four, in a manner as perfect as it is possible to approach."

The reasonableness of this statement will be at once apparent to every practical man, certainly to every teamster. Such know that when four horses are worked in the usual way, a much larger proportion of draft, in nine cases out of ten, is taken by one of the teams than by the other, and the ordinary mode of harnessing and working renders the equalization of draft impossible. This great desideratum is easily effected in the manner mentioned above.

EXTRAORDINARY FECUNDITY IN EWES.

We copy from the last number of the British Quarterly Farmer's Magazine the following notices: "We are informed that Mr. Botterill, farmer of Wroot, has now in his possession twelve ewes, which during the present season, have produced no less than 37 lambs, being three each for 11 of them, and for the remaining one four. Mr. Thomas Shepherd of Wooley, parish of Moorwinstow, Cornwall, had an ewe sheep that produced 44 lambs. Four seasons she had two each season; three times she had three, three times she had four; and three times five. She was a cross bred Nott sheep, and bred by Mr. Colhill of Devon."

The President's Message was brought form Washington to New-York in nine hours and fifty-three minutes.

Notices of Agricultural Societies.

NEW JERSEY STATE SOCIETY.

THE last Fair of this Society was held at New Brunswick, October 27, 1841. Premiums of silver cups, varying in value from $5 to $10, were awarded to Caleb Brokan, for the best pair of matched horses; to Dr. J. A. Pool, for the best thorough bred stud horse, "Raritan;" to the same, for the best jack; for the best imported Durham bull, "Bernard," a portrait of which is given in another part of this paper; also, for the best bull calf, "Franklin," for the best imported Durham cow, "Maria," for the best, not imported, "Laura," and for the best thorough bred heifer, "Minna;" to J. C. Van Dyke, for the best thorough bred mare; to D. Runyon, for the best common bred mare and colt; to D. B. Smith, for the best thorough bred colt; to Philemon Dunn, for the best fat bullock, second best pair of oxen, for best Durham bull, not imported, for the best common heifer, and for best Lincolnshire buck; to Franklin Smith, for best pair of oxen, best common bred bull, under two years, and for the best Leicester buck and ewe; to Dr. J. Elmendorf, for best common bred bull; to John Hick, for best common cow; to Charles Starr, jr., for best boar, (Woburn,) over two years; to J. B. Edgar, for best boar, (Norfolk,) under two years; to A. S. Neilson, for second best do., (Berkshire;) to William Gulick, for the greatest quantity of clover hay from one acre, viz: 3 tons, 1825 lbs.

SOUTH CAROLINA STATE SOCIETY.

THE annual Fair of this Society was held at Columbia, on the 22d November last, when a variety of interesting reports were read; among them, an Essay on Sea Island Cotton, by the President, Reports on Manures and on Forage, by the Pendleton Agricultural Society, and a Report from the Newberry Agricultural Society, on Agricultural Economy. The annual address was delivered by Gen. J. H. Hammond, and is spoken of as an effort of the highest rank. Premiums, in silver cups, of the value of $10 to $20, were awarded on horses, cattle, sheep, mules, swine, &c. Col. Wade Hampton presented the Society with two bushels of "Musquite Grass seed," which, he says, is a native of Texas, and he thinks, from a trial of a single year, is admirably adapted to South Carolina. Col. H. says: "It has, I understand, been successfully cultivated by Mr. Carter, of Alabama, for some years past; and the high estimate he placed on it, induced him very kindly to send me a few quarts of the seed, in the summer of 1840. These seed were planted in September following, in drills, came up with great regularity, and continued to vegetate during the whole winter. A drouth of unusual duration in the spring, and another in July, accompanied by intense heat, produced no visible effect on it, and it has continued to flourish through all the vicissitudes of a most disastrous season. The seed were sown on dry alluvial soil, which had been prepared for turneps; and from a piece of ground, not exceeding the fourth of an acre, I gathered fourteen bushels of seed. It will, I think, make fine hay, growing from two and a half to three feet high; and, in its native prairies, it forms the favorite pasture of the wild horse and buffalo."

ONONDAGA COUNTY (N. Y.) SOCIETY.

OFFICERS.—William Fuller, of Skaneateles, Pres't.; Silas Cheesebro, of De Witt, Fletcher Woodward, of Camillus, Vice Pres'ts.; Chester Moses, of Marcellus, Rec. Sec'y.; Enoch Marks, of Navarino, Cor. Sec'y.; E. F. Wallace, of Syracuse, Treas.

An executive committe, of one member from each town in the county, was also chosen. The prospects of an efficient and useful Agricultural Society in this county are decidedly fair; and, it is to be hoped, the warmest expectations of the friends of an improved husbandry will be fully realized in the result. The thanks of the Society were voted to the former officers of the Society, for the valuable assistance they had rendered in its organization and management.

HARTFORD COUNTY, (CONN.)

REPORT OF THE VIEWING COMMITTEE ON FARMS.

SUCH reports as the one now before us, always possess for us a peculiar interest; and, we doubt not, are equally acceptable to our readers. In the report of the management, products, and expenses of a well conducted farm, there is something tangible, and which exhibits better than any mere theory, the actual results of farming; and we hope that hereafter, premiums on farms, small farms as well as large, will be distributed by every agricultural society in the country. There are many beautiful farms in Hartford county, as we have the pleasure of knowing, but the four included in the Report are those of Mr. Samuel Deming, of Farmington, Mr. S. H. Huntington, of Hartford, Mr. S. N. Bartlett, of East Windsor, and Mr. Jonathan Goodwin, of Hartford. We regret that we have not room for the whole Report; as it is, an abstract is all we can pretend to give.

Mr. Deming's farm contains one hundred and thirty acres, in nine separate pieces, and lying on both sides of Farmington river. These separations are a disadvantage, as they prevent in some degree that unity of design and management which might otherwise be made to appear. Few men, however, would overcome these obstacles, or turn them to better account than Mr. Deming. A considerable part of his meadow land, a few years since, was a worthless bog, which, by draining, he has converted into most productive meadows of the finest grasses. The farm in all its parts, buildings, yards, &c., is in fine order, and bears every where marks of care and improvement. The produce and expenses of Mr. Deming's farm are shown below, the prices being put at the actual market value.

30 acres of mowing, 75 tons of hay, at $9,	$675 00
15 " in rye, 250 bushels, at 80 cents,	200 00
6 " in corn, 130 " 80	104 00
3 " in oats, 150 " 45	67 50
3 " in potatoes, 250 " 25	87 50
Pasturing for 34 head of creatures, $5,	170 00
	$1,304 00

EXPENSES.

3 men 6 months, $14 per month,	$254 00
Equal to 1 1-2 men during the winter, at $13 per month,	117 00
	$371 00
Nett profit,	$933 00

Mr. Huntington's farm is about three miles west of the city of Hartford, and contains one hundred and ten acres, eight being in wood land. Mr. Huntington has had the farm three years, and the effect of good management and an improving culture is visible in every part. The low grounds have been improved by draining, and the gravely knolls by plaster. Mr. H.'s method is to manure well, and plant no further than his manure will go. Last year he made one hundred and fifty loads of manure. The farm buildings are all new, and good models for a farmer, being constructed with due regard to economy and convenience. Mr. Huntington furnishes another instance of a man bred to a professional life, turning his attention successfully to the management of a farm, taking hold himself of the plow, and engaging in this best of all employments with an energy and pleasure that already exhibit the most favorable result. The statement of the crops, expenses, &c. of Mr. Huntington's farm, is as follows:

Received for hay, fruit, &c. sold from the growth of the present year,	$190 85
50 tons hay on the farm, $9,	450 00
200 bushels of oats, 46 cents,	90 00
600 " potatoes, 25,	125 00
15 " rye, 80,	12 00
300 " carrots, 25,	75 00
Oat straw and corn stalks,	20 00
Turneps, 100 bushels, 17 cents,	17 00
Ruta bagas, 75 " 17 "	12 75
Broom corn,	6 00
Pasture for 27 head of cattle,	125 00
	$1,133 60

EXPENSES.

Clover and grass seed,	$13 50
Horse rake,	9 00
Sythes, rakes, hoes, pitchforks,	5 84
Extra labor in haying,	44 00
1 man 6 months, $13 50,	81 00
1 " the year,	186 00
8 loads of manure,	12 00
Plaster,	2 12
Paid for pasturing,	22 50
	$345 96
Nett profit,	$787 64

Mr. Goodwin's farm is about one and one-fourth miles west of the city, and contains forty-three acres. Few farms show more decisively than this, the advantage of small farms, with high cultivation, over large ones, half cultivated. Every acre of this has been brought to a high state of improvement; the buildings, fences, and indeed every thing in and about the farm, were in perfect order. For farming purposes, the committee judged it to be worth at least $200 per acre. Thirty-four acres are in mowing, and six in pasture. The stock consists of six cows, a yoke of cattle, and a horse. Mr. Goodwin keeps an exact account of the products and expenses of his farm, which is as follows:

Sold 49 tons of hay, at $12 per ton,	$588 00
Sold butter,	109 90
Sold 6 calves, weighing 812 lbs., 4 1-2 cents,	37 50
Received for rowen feed,	33 66
Keeping horse 19 weeks, 4s. per week,	12 67
Profit on two yoke of cattle fattened,	40 00
1 fat cow sold,	30 00
1 " steer "	33 00
6 spring pigs,	18 00
2 hogs, weighing 600 lbs.,	36 00
Sow and pigs sold,	30 00
125 bushels potatoes sold, 25 cents,	30 25
Received for team work, done off the farm,	40 00
	$1,034 72

EXPENSES.

Paid for manure,	$60 00
" labor,	90 00
Pasturing cows 16 weeks, at 40 cents per week,	38 40
Corn raised on other land,	21 00
Cost of sow,	11 00
" pigs,	3 50
Cow before feeding,	18 00
Steer " "	20 00
	$261 90
Nett profit,	$772 82

Mr. Bartlett's farm is in East Windsor, and contains one hundred and fifteen acres, a considerable part of which, when it came into his possession, ten years since, was almost in the condition of *blowing sand*, so light and sandy, and so reduced by improper cropping, was the land. Mr. B. has now twenty-seven acres in mowing and tillage, sixty-three in pasture, and twenty-five in wood. By pursuing a rotation of crops, feeding out all his produce to stock, and manuring to the extent of his means, the whole has been improved, and some of the farm brought into a good state of cultivation. Mr. B. pays great attention to stock, and has some fine Durham cattle. Mr. Bartlett's statement of crops, expenses, &c., to the committee, is as follows:

40 tons of hay, at $9 per ton,	$369 00
80 bushels of oats, at 45 cents,	22 80
140 " corn, 80 "	120 00
150 " potatoes, 25 "	37 50
600 lbs. tobacco, 5 cents,	30 00
Pasturing 22 head of cattle, $5,	110 00
	$689 00

EXPENSES.

Labor of one man, at $11 per month, 6 months,	$66 00
Boy, 10 days' haying,	5 00
	$71 00
Nett profit,	$609 90

WINNEBAGO COUNTY (ILL.) SOCIETY.

THERE are few things more gratifying than to witness the increasing attention paid to agriculture, as demonstrated by the proceedings of the numerous societies that have sprung up within the past year, in almost every part of the United States. The many notices of such societies, in our last volume, are proofs of this, and we shall add more, as the kindness of our friends shall afford the means. We find, in the Rockford Pilot, an account of the annual meeting of the society named above; and it is gratifying to learn that the meeting was fully attended by the farmers from the vicinity, and from the neighboring counties. Fine specimens of full blooded Short Horns, and beautiful Berkshires, were offered for premiums; and the exhibition of horses might have shamed that of many older societies. An address was delivered by Dr. J. C. Goodhue, which was listened to with much interest. It was both practical and illustrative, and enforced lessons which, if put in practice by our farmers, would secure the best results. He dwelt with much effect and eloquence on the bright agricultural prospects of the fertile west, and recommended the adoption of those principles in agricultural operations, which experience has proved are the surest means of ultimate success. The premium for the best horse was awarded to J. S. Norton, for the horse "Uncas." For the best bull, to B. T. Lee, for the imported Short Horn, Duke of Wellington. For the best boar, to Horace Miller, for a full blooded Berkshire, from Lossing, of Albany, "as fine an animal as the country affords." The specimens of vegetables, corn, cocoons, &c. &c., were very fine. In short, the whole went off in the most encouraging manner; and we trust our Winnebago farmers will find, in this commencement, a strong inducement to continued exertion, and with still more complete success.

LAKE COUNTY (OHIO) SOCIETY.

THE first annual Fair of the Lake County (Ohio) Agricultural Society, was held at Painesville on the 19th and 20th of October, 1841. According to the "Telegraph," there are no counties in the northern part of that agricultural state, that can present a more imposing and finer display of cattle, &c.; and we are gratified to learn that a full proportion of them were present at the fair. Besides the animals presented for premiums, there were three ox teams on the ground, that attracted much notice. That from Mentor, numbered thirty-six yoke; that from Le Roy, thirty-six; and that from Madison, twenty-five. A beautiful pair of twin cattle, owned by Mr. Williams, of Le Roy, attracted the notice, and won the admiration of all. They were dark red, with some white on their faces, sides, and flanks, and so perfectly matched, as to render it almost impossible to distinguish the one from the other. The plowing match was well attended. Seven teams entered as competitors, and the quarter of an acre allotted to each was plowed in from thirty-two to fifty-four minutes each. The premiums were awarded to Mr. Ford and Mr. Page, both of whom performed their work admirably, in thirty-two minutes.

The exhibition of domestic manufactures was particularly fine; and the specimens of silks, carpets, woollen cloths, flannels, shawls, straw bonnets, &c. &c., elicited the highest commendation. Mrs. T. A. Tisdell, of Madison, appeared in a beautiful silk dress of her own manufacture. Few would have deemed it any other than imported. Mrs. S. A Tisdell also obtained a premium on a silk dress pattern, of fine finish and texture, the work of her own hands. This family have, for a considerable time, been engaged in the silk business, and have practically demonstrated that it may be profitably and pleasantly connected with the other agricultural labors of the farm. A number of specimens of sewing silk were presented, which were of the best quality. A very extensive exhibition of large and fine vegetables was made, which, with the fine fruits, &c. presented, gave rich promise of the capabilities of that district of Ohio. The exhibition of articles of mechanical skill was very limited, a fault not likely to occur again, in a population where manufacturing most articles or implements, of domestic use, is practiced. The specimens of the dairy were beautiful, and of the best quality. The unexpected success of this first experiment in Lake county, cannot fail to produce an increased interest in the farmers' holiday, and render the anniversary hereafter exceedingly profitable. The lake country of Ohio is most beautiful; and the impulse which will be given to an improved agriculture, by such annual exhibitions, will be most beneficially felt, in whatever districts they occur.

TRIALS OF PLOWS.

In our first and second numbers of the Cultivator, for last year, we gave a full account of this implement, and the results of numerous experiments, made in England and in this country, to ascertain the form best adapted to remove the soil perfectly, and at the same time require the least draft, or, in other words, be the easiest for the team. Since that time, the subject has continued to receive public attention; the makers of plows have redoubled their efforts at improvement, and the most active exertions have been made to produce implements as perfect as possible. This is the more gratifying, as the plow ever has been, and will continue to be, one of the most essential implements of agriculture, as well as the most common; and every improvement that shall render it better adapted to general use, and spare the labor of our patient animals, will be widely felt. Until the means of measuring the draft, by the dynamometer, became common, the vast difference existing in the power required to move them, was not known, or understood. A plow was a plow; so, at least, the farmer considered it; and though the teams used might have told a different story, had their opinions been asked, or their distress when at work been admitted as evidence, there was for years little effort made for rendering their construction more philosophical, or consistent with the obvious principles of mathematics. The idea that a philosopher could know any thing about a plow, was scouted as absurd; and we well remember the ridicule, not to say suspicion, with which the celebrated essay of Mr. Jefferson, with its reasonings and diagrams, was received by the farming public.

The annual agricultural meetings and fairs, with their plowing matches, have contributed much to bring and keep the subject of plows before the public mind; and those of the last fall have, in many instances, had particular reference to this great element of good husbandry. Massachusetts has, in this respect, taken the lead; and the trial of plows at Worcester, in 1840, did much to invite the attention of agriculturists, both at home and abroad, to the necessity and possibility of improvement. The plows of Howard, Prouty & Mears, Ruggles & Co., all of Boston, and all deservedly celebrated, are among the finest specimens of mechanic and scientific skill the country has yet seen. The improvements made during the past year in their plow, by the last named firm, have rendered it at least equal to the best of the New England plows, in the opinion of those competent to decide. The estimation in which the Howard plow is held, may be inferred from the fact, as stated in the New England Farmer, that the makers have received orders, during the past year, for four hundred more than they were able to provide.

The fair of the N. Y. S. Ag. Society brought together a great number of plows, as well as other agricultural implements; and although the trial, owing to the circumstances stated in the Report of the proceedings, was not as perfectly satisfactory as it might have been, still it was sufficient to show a great improvement had been made in the form, mechanical execution, and ease of draft, over those that had preceded them. At this fair, the Mottville plow, which received the first of the regular premiums, the Laughlin plow, and the Wisconsin plow, as well as one presented by Ruggles, Mason, Nourse & Co. to the editors of the Cultivator, but not offered for the premiums, attracted much notice. But the double mold board plow of Messrs. Mooers & Slater, from the excellence and novelty of its construction, the facility with which it would operate on side hills as well as on level land, and its ease of draft, rendered it deservedly a favorite implement, and the honorary premium was deemed well awarded. It was supposed by many very good judges of plowing, that the resistance offered by the land side share would increase the draft sensibly, but the result showed that such was not the case.

The trial of plows which took place under the direction of a committee of the American Institute, at New-York, was very well conducted; and although the number of plows on the ground was not as great as at Syracuse, the trials with the dynamometer were more satisfactory. It is to be regretted that some of the favorite Massachusetts plows had not been present for competition, as a full investigation and understanding of the matter requires repeated and careful comparison of plows in the same soils, and as near as possible under the same circumstances. We believe that such will hereafter be the case. The manner in which the report of the trials of plows last year at Worcester was presented, renders a comparison of the actual draft used there and at New-York, difficult; but as the mode was adopted at New-York that English experimenters have used, a comparison between the plows of England and Scotland, and those of this country, is more easily made. The following table, which we find prepared at our hand in an account of the New-York trials, given in the Brooklyn Star, we transfer to our columns with pleasure, merely remarking that we have verified the correctness of the foreign results, by reference to the reports in the Journals of the English Royal Agricultural Society, and the Scotch Highland Ag. Society, from which they were taken. The reader will see that the best British plow, Yester No. 1, weight 170 lbs., draft 380 lbs., removed a furrow slice of only 10 inches by 6, while the best American, Barnaby & Mooers' double mold board side hill plow, (the same that received the premium at Syracuse,) weight 142 lbs., draft 350 lbs., removed a furrow slice of 12 inches by 8, or nearly twice as large. We are gratified to learn that this plow, which received the premiums at Syracuse and New-York, has been presented by the Institute to the Royal Ag. Society, and that doubtless it will be subjected to comparison with the best plows of that country. In examining the list of English agricultural implements, we have often remarked the fact, that English plows range in prices from $20 to $30, while the best improved American ones do not cost more than from $10 to $15. The table will be understood without further explanation.

NAMES OF PLOW.	Weight of Plow.	Draft by dynamometer.	REMARKS.
Hart's, English,	140 lbs	400 lbs	Furrow not well taken out
Ransome's wheel, do.,	168	480	Bet. furr. not well laid up
Yester, No. 1, Scotch,	170	380	Clean furrow.
" " 2, English	136	440	" "
Scoular's swing, do.,	150	446	" "
Hunter's, English,	190	560	Furrow not well laid up.
Currie's, Scotch,	170	500	" " "
Coltman's, do.,	176	500	Second best furrow.
Hadden's, do.,	180	510	Third " "
Neill's, do.,	185	500	Good furrow.
Wilkens', English,	175	540	" "
Ransome's swing,	160	462	" "
Palmer's wheel, Eng.,	230	560	Good work.
New spring, Scotch,	169	560	" "
Sussex, English,	189	680	" "
The following plows were tried at Sing Sing, 14th October:			
Barnaby & Mooers',	142	350	Best work of any Americ'n
Wisconsin,	170	438	Second best rate.
Beebe's swing,		451	Good furrow.
Minor, Horton & Co.'s,		460	" "
Cornelius Bergen's,		472	" "

The furrow slice turned by the European plows, was 10 inches broad, and 6 deep, and that by the American plows, at Sing Sing, 12 inches wide, and 8 deep.

AGRICULTURAL JOURNALS AND EDITORS.

During the past year, several changes took place among the agricultural papers of the country, some of which we noticed, *en passant*, and there are one or two others, to which we wish to refer at this time. The first is the establishment of a new paper, at Boston, called the "*Massachusetts Ploughman*," (with which the Yankee Farmer has just been united,) under the management of the veteran Buckminster, formerly of the Boston Cultivator, which paper is still continued by its proprietor.

The other event to which we have referred, is the accession of our friend, the Agricultural Commissioner of Massachusetts, the Rev. Henry Colman, to the chair of the New Genesee Farmer, at Rochester, as sole editor and joint proprietor of that paper. The highly favorable opinion we have always entertained, and so frequently expressed, of the talents and extensive acquirements of this gentleman, need not be repeated here; the pages of the Genesee Farmer, previous to its union with the Cultivator, and indeed those of nearly every other agricultural journal of the country, bear the clearest evidences of his practical knowledge, and his happy talent at imparting instruction. We consider his connection with the New Genesee Farmer an auspicious event to the agriculture of our State,—a state that will feel proud to welcome him as a citizen. For ourselves, we present to Mr. Colman, as a gentleman, a citizen, and an editor, a most cordial welcome to New-York.

WINE IN THE WEST.

One of the most successful efforts at the culture of the grape and the production of wine, that has been made in this country, is that of Mr. John Davis, in Indiana, near Clinton, and about ten miles from Louisville, Ky. Mr. Davis has about seven acres in vineyard, but only one and a half in bearing. The vines are planted in rows six feet apart, and three feet apart in the rows; and the editors of the Louisville papers say that in September, on the acre and a half in bearing, the rows presented the appearance of "almost solid walls of fruit." This we can readily believe, since the quantity of wine made from this ground is now ascertained to be 1,170 gallons. No European vineyard has surpassed this; and the ordinary product is not more than half this quantity. Mr. Davis' mode of training his vines is very simple. Posts eight feet apart are set along the rows, with pegs driven in them, fourteen inches apart. On these, rods of wood or lath are laid and secured, and to these the vines are lashed with bark. The ground should be prepared by the spade, or trench plowing, so as to place the rich surface earth beneath the point of washing. Of all the varieties he has tried, Mr. Davis prefers the Catawba, and from this the wine was made. Mr. Davis uses cuttings of well ripened wood, from sixteen to eighteen inches long, of the last year's growth, cut before the sap begins to flow, and cut square, immediately above and below a joint, as is generally practiced in all countries with grape cuttings. The holes are dug eighteen inches in depth, and about the same across, into which, about the middle of April, two cuttings, one on each side, are placed, and the holes filled with rich earth. One or two buds should be left above ground, and the earth well trod about the cuttings. The cuttings, when taken from the vines, should be placed or buried in a cool cellar, and when taken out for planting, it is found to assist their sprouting to soak them twenty-four hours in rain water. There is every indication that wine and silk will become no inconsiderable items in the aggregate of western products; and they certainly are articles for which, at the present time, large sums of money leave this country annually. We shall most cordially welcome any new necessary product or manufacture, that shall make us more independent of foreign nations, and less liable to be laid under contribution by them.

Notices of New Publications.

"THE POULTRY YARD."

We have here in a neat and convenient form, one of the very best works on poultry extant; one which is much needed in this country, and which will be found useful to every one, and indispensable to those farmers who make the rearing of poultry and the sale of eggs an important item of their profits. The author, Mr. Boswell of Greenlaw, Scotland, has given a practical view of the best methods of selecting, rearing, and breeding the various species of domestic fowls, arranged under the following heads:—1. Poultry yards and sheds; 2. Kinds and breeds of fowls; 3. Feeding of Poultry; 4. Pairing, laying, and hatching; 5. Breeding; 6. Peculiar sorts of fowls; 7. Aquatic fowls; 8. Diseases of Poultry. The present is the first American edition; and for this, the public is much indebted to the publishers, Wiley & Putnam, New-York. Messrs. Wiley & Putnam deserve much credit for the valuable publications on domestic husbandry they are furnishing us, and thus supplying a want which has long been severely felt. We hope hereafter to present plans of poultry houses given in this work, to the readers of the Cultivator, as well as extracts from the mass of useful information contained in the volume.

THE FARMER'S ENCYCLOPÆDIA.

We have received the two first numbers of this new work from the pen of Cuthbert W. Johnson, Esq. It is published in monthly numbers of 130 pages each, price 5s. commencing in September last. It is to be completed in ten numbers; cost, some $12. The plan is very much like that of the Dictionary of Agricultural Terms, Processes, &c. prepared for the two last volumes of the Cultivator, and which will be continued. It of course embraces more topics, and treats subjects more fully, than the limits of our journal will admit. The numbers before us embrace letters A and B, and from the examination we have given them, we think the work will prove a valuable contribution to the agricultural public. Mr. Johnson is certainly one of the most able scientific men of England, and as he has for years devoted much of his time to the connection of the natural sciences, particularly chemistry, with agriculture, he can scarcely fail of bringing togther a great mass of useful facts for the advancement of an improved husbandry. His observations on the species of grains and grasses, so far as they have come under his notice, are valuable to the farmer, and creditable to him as a man of science. We can recommend the Farmer's Encyclopædia to such of our friends as wish a comprehensive book of reference on agricultural topics. It is published in London, but may be had of Wiley & Putnam, New-York.

Mr. ELLSWORTH'S APPENDIX—No. 2.

We acknowledge our obligations to that indefatigable friend to agricultral improvement, H. L. Ellsworth, Esq. for copy of the pamphlet, the title of which is given above. It consists of a letter addressed to E. Goodrich, Esq. of Hartford, on the state of Agriculture in the West, particularly in the Wabash Valley; letters from H. O. Smith, Solon Robinson, and A. C. Stevenson, Esq. in reply to a series of queries on subjects of great agricultural interest, addressed to them by Mr. Ellsworth. The mode of fencing prairie farms adopted and recommended by Mr. Ellsworth, possesses so many advantages, that we will present it to our readers, as soon as we are able to furnish the cuts for illustration. We find much in this pamphlet of practical interest, but have room for only the following extract on sowing corn for fodder. Our own experiments leave us no room for doubting the perfect correctness of Mr. Ellsworth's statement; and we recommend the practice to our farmers.

"Permit me to mention an experiment made by myself at Washington on the subject of fodder. Noticing the statement made in the French periodicals, that the stalks of corn (maize,) contained one-half as much saccharine matter as cane, and knowing that my ancestors made their molasses during the revolutionary war from these stalks, I sowed four and a half bushels of common corn, broadcast, and harrowed in the same; this labor was easily performed by a single man with a team, (including the plowing) in a day. Having soaked the corn in saltpetre, it took a rapid start, overtopped the weeds, and covered the ground with a forest of stalks. When fairly tasselled, I cut the same, which I fed to cattle, horses, and hogs, both green and dry. If fed to swine after being cured, it was cut and fermented with chop or bran. Being anxious to ascertain the quantity, I measured a few square feet of the stoutest. I found I had 5 lbs. of green fodder per square foot: this may not seem incredible, and it is probably less than what would grow on rich lands at the west; if, however, we consider there are 43,560 square feet in an acre, we shall obtain 217,800 lbs. equal to 108 1-2 tons of green fodder. I cut the first crop the early part of July, and plowed and sowed the land again, and took a second crop two thirds as large, and even tried a third on the same land; but it did not reach over ten inches before the frost seized it. Persons who have only a small patch of ground may try this experiment to advantage, and fill their barns with fodder."

WORK FOR THE MONTH.

One of the most important truths that can be impressed on the mind of the farmer, is, that *whatever is worth doing at all, is worth doing well*; and, by acting upon this principle, he will rarely find that he has labored to no purpose during the year. The winter months, to the farmer, are months of comparative leisure, but he will find no time for idleness. Negligence is no more to be tolerated in January than in July; and inattention to the interests of the farm now, will frequently add materially to the labors of the year, and seriously reduce, if not wholly destroy, the profits of a season. Industry, economy, sobriety, and unimpeachable integrity, should be the watchwords of every farmer, for with these for his guides, he can hardly fail of success. To these he must add a knowledge of his business, the most improved modes of culture, the advantages of agricultural reading, and a habit of comparison and reflection on facts, and competence may be considered certain.

There is an error somewhat prevalent, that animals do not require salt and water as much in winter as in summer. This is a mistake, and the good farmer will see that they have both. Nature's laws, in this respect, cannot be trifled with.

Animals fed on dry hay, will do much better if they have a meal of roots once or twice a week. For the horse, we prefer carrots, and even if fed on grain, these roots will be found most healthful.

Do not feed your stock in the street, or about your fields, but in your yards. The man who feeds in fields or roads, loses his manures, poaches his grounds, and by the habit wastes at least one-third of his fodder.

If any of your animals exhibit symptoms of falling off, such as growing poor, neglecting their food, &c., they should immediately receive extra attention, and a stop at once, if possible, be put to farther decline. Cows should have mashes of bran, or more nutritive food, and all kinds of stock so conditioned should be carefully protected from the severities of the season.

Do not starve your fowls, if you expect large, well filled eggs, or plump fat pullets for next Thanksgiving. Your profits from your fowls will in general be in direct proportion to the care and feeding you give them. Remember they must have a box of sand, gravel, plaster, ashes, &c. to roll in, and pick pebbles from, to aid in the digestion of their food, and preserve their plumage and health unimpaired.

Give your horses salt frequently with their grain, and if you add a good handful of ashes, once a week, you will rarely find them troubled with cholic or bots. If you keep your horses on corn, you will find it better for them to have the grain and cob ground together.

Keep your lambs and old sheep separate, and, if possible, never allow more than fifty of any kind to lie together. Where too many are herded together, the strong are always in advance, picking out the sweetest and best of the hay, and trampling on the remainder. This is one of the ways in which the weak are sure to grow weaker, as well as the strong stronger.

Be certain to keep your diseased animals, no matter of what kind, if you have any, away from the rest of your stock. Diseases are frequently contagious, and the sickly or weak can be better cared for when separate from the rest of the herd.

Keep your stables and pens well littered with straw, and if you have plenty of it, keep your yards in the same condition. Littering adds to the comfort of your animals; it increases the quantity of your manures, and it adds to their quality, as it absorbs and retains the fluid parts that are otherwise mainly lost.

Examine your apple bins, and separate the sound from the partially decayed fruit. If you keep a memorandum of the times your various apples arrive at perfection, it will aid you much in arranging a permanent succession of good fruit for the year, which every good farmer should aim at.

Feed all your animals regularly. You find such a mode of feeding best in your own case, and you will find it so with them. Where animals are fed irregularly, they remain constantly in a restless, dissatisfied state; whereas, when fed punctually, they eat, and expect no more till the stated hour arrives.

Look out for your fire wood for the ensuing year. Frost seasons wood rapidly, and if you cut and split now, the trouble of drawing tons of water to your wood house may be prevented. Nothing can justify scolding in a woman, but a smoking house, and a fire of green wood. If you love soft words, fair faces, and sweet smiles, make sure of dry wood and a bright fire.

Commence the year with a regular farmer's book. Enter in it, daily, every thing you will wish to remember with regard to crops, labor, &c. Keep a close account of your receipts and expenditures; it is the only certain mode of knowing your actual profit and loss in your business; and this is as necessary in farming as in trade.

Dr. Franklin said that creditors were a superstitious sort of people, great observers of set times and days; and it would be well if those who are in debt would always bear this fact in mind. Settle up all your accounts punctually; do not let your mechanics complain for want of their pay, or the cry of those who have tilled your fields, rise to heaven in complaint of your negligence or dishonesty.

Winter, too, is the season in which works of charity and kindness are frequently required, and which the farmer ought never to neglect. There will always be those who are unfortunate and poor, and for such, good may always be done. The widow and the orphan, the sick and the destitute, all have their claims, that may not be disregarded. The able poor must have employment, but in this land of abundance, none must be left to suffer.

Visit your district school, and take an interest in its management and progress. On this single point, our country schools, the destiny of our country may be said to be depending. There the *men* of our country receive their first and most lasting impressions; and what is done here, should be done in the best possible manner. Children are pleased with such attention, and the instructor will not be less gratified.

Look round among your farming friends, and see who of them takes an agricultural paper. If they have hitherto neglected the advantages such a paper offers, would it not be an act of kindness to them to bring the subject to their notice; to show them your copy of the Cultivator, and invite them to become subscribers. It is those who read such journals that are the best able to appreciate their utility. Do not forget to provide food for the mind as well as the body; the means offered in this country are ample, and easily accessible; and of all negligence, this is the most criminal and fatal.

SILK MANUFACTURE AT AUBURN.

We are indebted to William R. Prince, Esq., Flushing, for the following letter from Mr. A. Gridley, showing the gratifying results which have followed the efforts to introduce the manufacture of silk into the State Prison at Auburn:

State Prison, Auburn, Dec. 6, 1841.

In reply to yours of the 2d inst., I furnish the annexed tabular view of our small beginning in the silk operation, but do so as a matter of courtesy to you. You will observe a great falling off in the daily earnings after 1st September; this is accounted for as follows: we procured one of Brooks' machines for twisting and doubling into sewings directly from the cocoons; on the 20th May last, we put two convicts (raw hands) at work. The first month, they earned 27 1-2 cents per day; second monih, 41 1-2; third month, (August,) 63 cents. In the mean time, we built four new machines, on the same plan, and in September and October put them in operation, with an addition of ten inexperienced hands; all the convicts employed are of a very low grade, cripples, boys, and negroes. The result shows a daily average of 30 1-3 cents per day; the men thus employed are such as are let to contractors, as quillers and spoolers, at 15 cents per day.

We have been engaged this season in building a two story brick workshop, 208 feet by 34; this has given employment to all our efficient men who are not employed by the contractors, so that it has been impossible for us to go largely into the silk operation, nor did we think it prudent to do so; it is an experiment, and prudence dictates that we should enter upon it cautiously. The experiment, thus far, has satisfied us perfectly that our convicts can be as profitably employed in this interesting branch of business as in any other. We feel a suitable solicitude for the ultimate success of the silk business, not only in this prison, but from motives of patriotism, we feel a keen anxiety that it may, as we think it must, ere long, become a principal staple of our country, second only to cotton and wheat. When we commenced operations, we considered it very doubtful whether cocoons could be procured to any considerable amount, but have been happily disappointed thus far, as we find there has been a simultaneous commencement (in a small way) throughout the entire country in the culture of the worm; and there are now indications of a general movement throughout the western part of this state and elsewhere, that leaves no room to doubt that a most abundant supply of cocoons and reeled silk awaits us the ensuing season. I am aware of the immense importance to the country of our success in this prison, and as this is properly understood and duly appreciated by the present agent, Henry Polhemus, Esq., I have the fullest confidence that nothing will be left undone on his part that shall tend to produce so desirable a result.

The following table of results shows, in

Col. 1—The months in which the work was done.
" 2—No. of skeins of silk made, 320 skeins to the lb.
" 3—No. of days of convict labor.
" 4—Cost of cocoons, at $4 per bushel—113 ounces silk per bushel.
" 5—Value of silk made, at 2 1-2 cents per skein.
" 6—Amount earned per day by each convict, (omitting the fractions.)
" 7—Total amount of convict earnings per month.

May & June,	2800	102	$35 00	$70 00	$0 27	$28 00
July, ...	2243	54	28 00	56 07	0 41	22 46
August, ...	3279	52	41 00	81 97	0 63	32 77
September, .	5075	168	63 44	126 87	0 30	50 74
October, ...	7476	308	93 45	186 90	0 24	74 76
November, .	10150	338	126 87	253 75	0 30	101 50
	31023	1022	$387 76	$775 56		$310 23

Average earnings of each convict, per day, is a fraction over 30 1-3 cents.

The following is the amount paid for cocoons, silk, &c., since our commencement, 20th May last:

For cocoons, at an average cost of $3 34,....	$949 69
" reeled silk, average per lb. of $4 87 1-2,.	1,663 91
4 silk machines, and other fixtures, for manufacturing sewing silk,.....	178 75
Total investment to 1st Dec., 1841,.....	$2,792 35

AGRICULTURAL SOCIETY OF THE U. STATES.

A meeting of the friends of Agriculture from the different sections of the United States was held pursuant to public notice, in the hall of the House of Representatives, on the 15th December, 1841; when,

On motion of the Hon. Dixon H. Lewis of Alabama, the Hon. James M. Garnett of Virginia, was appointed President of the meeting; and the Hon. D. H. Lewis of Alabama, Hon. Edmund Deberry of N. Carolina, Dr. James W. Thompson of Delaware, Joseph Gales, Esq. of the District of Columbia, Benjamin V. French, Esq. of Mass. and James T. Gifford, Esq. of Illinois, were appointed Vice-Presidents; and J. F. Callan of the District of Columbia, and Robert E. Hornor of New-Jersey, were appointed Secretaries.

The President having very ably and pointedly addressed the convention, appointed the following Committee to present the Constitution of the Society, viz. Hon. H. L. Ellsworth of D. C., Hon. D. H. Lewis of Ala., Hon. James A. Pearce of Maryland, Hon. Zadok Casey of Ill. Hon. G. M. Keim of Penn., John Jones, Esq. of Dela., Peter Thatcher, Esq. of Mass., and C. F. Mercer, Esq. of Florida, who after having retired for a few moments, reported a Constitution, which was read and adopted.

On motion, J. S. Skinner, Esq. Hon. D. H. Lewis, and Hon. H. L. Ellsworth, were appointed a committee to wait upon the Chairman, and solicit a copy of his address for publication.

On motion of Mr. Torrey of Massachusetts, it was

Resolved, That the Board of Control of the Society be instructed to present a petition to the present Congress of the United States, to set apart the Smithsonian bequest for the purposes of carrying out the objects of the Society.

The Hon. Levi Woodbury of N. H., Hon. Lewis F. Linn of Mi., Hon. W. C. Rives of Va., Hon. W. C. Johnson of Md., Hon. D. H. Lewis of Ala. Hon. John Hastings of Ohio, Hon. Henry L. Ellsworth, John S. Skinner, Esq. and J. F. Callan, of the District of Columbia, were appointed to select the officers of the Society provided for in the Constitution, to serve until the regular election in May next.

On motion, it was

Ordered, That subscription papers be left with the Secretary of the Senate, the Clerk of the House of Representatives, the Librarian of Congress, and with the Secretaries of this meeting, where persons desirous of becoming members may enrol their names.

And the Convention adjourned.

J. F. Callan, R. E. Hornor. } Secretaries.

The committee, appointed by the Agricultural Society of the United States to select the officers of the Society, to serve until the first general meeting and exhibition on the 4th day of May next, have met and do hereby recommend and report the following gentlemen to fill the offices annexed to their respective names. The Recording Secretary is requested to publish the list, and give special information to each individual of his selection.

Levi Woodbury, Ch'n, for the Com.

President—JAMES M. GARNETT.
Corresponding Secretary—John S. Skinner.
Recording Secretary—John F. Callan.
Treasurer—Edward Dyer.
Board of Control—Levi Woodbury, Elisha Whittlesey, Alexander Hunter, John A. Smith, W. J. Stone.

VICE-PRESIDENTS.

George Evans, Maine.	Dixon H. Lewis, Ala.
Isaac Hill, N. Hampshire.	Alex. Mouton, Lou.
B. F. French, Mass.	Archibald Yell, Arkansas.
Eli Ives, Connecticut.	F. H. Gordon, Tennessee.
Gov. Fenner, R. Island.	M. W. Philips, Miss.
Wm. Jarvis, Vermont.	Chilton Allen, Kentucky.
C. N. Bement, N. York.	Lewis F. Linn, Missouri.
C. S. Green, New-Jersey.	A. W. Snyder, Illinois.
Geo. M. Keim, Penn.	Solon Robinson, Indiana.
J. W. Thompson, Delaware.	Isaac E. Crary, Michigan.
Thos. Emory, Maryland.	John Hastings, Ohio.
Edmund Ruffin, Virginia.	H. L. Ellsworth, D. C.
Edmund Deberry, N. C.	R. W. Williams, Florida.
Wade Hampton, S. C.	Timothy Davis, Iowa.
W. Lumpkin, Georgia.	Henry Dodge, Wiskonsan.

The Vice-Presidents of Virginia, Maryland, District of Columbia, Pennsylvania, and Delaware, are ex-officio members of the Board of Control.

J. F. Callan, Rec. Sec.

SALES OF STOCK.

Mr. Bement of this city shipped, in December, six heifers, mostly Devons, to the Island of Bermuda. They were of a deep red color, and said to be handsome animals, and were purchased by A. S. Peniston, Esq. of New-York, for the Agricultural Society of that Island, of which Gov. Read is President. Mr. B. also informs us, that he recently sent four Durhams to South Carolina.

It will be seen, by a notice in another part of this paper, that E. P. Prentice, Esq. has disposed of his flock of South Down and Cotswold sheep, heretofore kept at Mount Hope, near this city, to J. McD. McIntyre, intending hereafter to devote his attention more entirely to the breeding of Improved Durhams, of which he has now about forty head. In addition to this purchase, Mr. McIntyre has quite a flock of Cotswolds, bred from the stock imported by Messrs. Corning & Sotham in 1840.

Correspondence, Inquiries, &c.

MANUFACTURE OF URATE.

"FARMER Hodge," from near Baltimore, has requested some information in regard to this substance. He is right in supposing it is a preparation from urine; and its principal value is probably derived from the combination of the ammonia of the urine, (or that substance which makes Farmer H.'s hogshead "smell loud,") with the plaster used. When ammonia comes in contact with plaster, it is absorbed by the plaster, and the plaster rendered more fertilizing than before. If the plaster is mixed with the urine, not only is the ammonia absorbed, but the other salts of the urine are combined, making it still more efficacious. The plaster may be inclined to set, or become hard, but stirring would doubtless prevent it. Lime, in a caustic state, or fresh burned, would not be as good as plaster to mix with the urine. The preparation of urate is comparatively new, and the *best* methods of making and using are doubtless yet to be learned; and these things one farmer can experiment upon as well as another. Experiments in Paris proved that urate was so powerful as a manure, that considerable caution was required in its use; and the quantity used can but be determined by experience.

DIKING MARSHES.

IN reply to an inquiry on the diking and improvement of salt marshes, made by a Nova Scotia correspondent, in a former number of the Cultivator, Mr. Jennison refers to Moorsom's work on Nova Scotia, where the process and its advantages are described. Speaking of a marsh so diked, Mr. M. remarks, "In the fourth year of its completion, the land is fit to receive the plow, and is then sown with wheat; the first crop is usually extraordinary, at least twenty-five bushels for one. On a marsh which has been diked and cultivated for a long period, eighteen bushels of wheat for one, or forty bushels per acre, is the average return, and from two and a half to three tons of hay per acre is the usual crop. Manure is never found necessary for diked marshes, as repeated crops of wheat may be raised in succession on this kind of land, without any further preparation than that of merely turning up the virgin mold, which is always found sufficiently rich without further preparation. Whenever a marsh has been exhausted, or worn out with bad management, subjecting it to the overflow of the tide waters, where this is admissible, will restore its fertility. See said work, from page 188 to 194.

We are not able at this moment to lay our hand on Bright's Travels; and if Mr. Jennison will forward, as he proposes, a condensed account of the Hungarian Agricultural School, we shall be happy to give it a place in the Cultivator. His suggestions respecting a price current for the country at large, shall receive consideration.

OPERATION OF SPAYING.

OUR correspondent, 'Floridian,' at Tallahassee, has sent us some queries, the first of which is as follows:—"We wish you, Messrs. Editors, or some of your attentive correspondents, to inform a young reader of the most scientific mode of performing the operation of 'spaying,' the reasons for the operation, and the proper age for doing it."

The reasons for spaying are simply to prevent the animal's breeding, destroy all inclination for intercourse with the male, and, by rendering her quiet, increase the aptitude to fatten. Castration in the male produces similar results.

The object in spaying is to remove the *ovaries*, which create the impulse to venereal intercourse, and are small round masses, varying with the age of the animal from the size of a large pea to that of a nutmeg, a little flattened, and attached to the uterus, or "pig bag," as the receptacle of the embryo young is commonly called. In young pigs, the ovaries are whitish, but when older, or during the estrus, they are reddish in appearance, and are more fully developed. Young sows are frequently spayed at six weeks old; in older ones, the best time is when they exhibit desires for the male, as the ovaries are then more easily distinguished. The only implements used, are a sharp pocket knife, and a long straight needle, with strong waxed thread.

Strong cords are fastened to the hind legs of the animal, by which she is to be suspended from a spike or a pin in an upright post. The mouth may be tied to prevent squealing, and the fore legs held by an assistant. The operator then makes an incision, up and down, between the four back teats, commencing with the two back ones, cutting through the skin, the flesh and muscles beneath, to the membrane which envelops the bowels. This must be divided carefully, that the intestines may not be wounded; and in doing it, the knife should be placed at the lowest point of the opening made, with the back of the blade inwards, and passed upwards until a slit, two inches in length, or sufficient to admit two fingers into the wound, has been made. The fingers are introduced, and the uterus grasped, which to the touch will appear like a wet empty bladder, partially flattened. The operator must retain his hold, at whatever point this is seized, gradually drawing it towards him, and working his fingers forward until one of the ovaries is felt, which he will recognize by its hard kernel-like feeling, and its color, when he grasps it between his finger and thumb, and cuts it off as near the uterus as possible. The uterus must still be held, the other ovary sought for, and exterminated in the same way. Care must be taken to excise the ovaries completely, or close to the uterus, or the operation may prove ineffectual. The wound is now to be sewed up; and the object is to make the wound unite on its inner part first, and as equally as possible. For the first stitch, the needle is placed on the belly, on the right hand side of the lower part of the slit, and passed through the skin, &c. into the bowels, taking care that the point does not touch the intestines. The most of the thread is now drawn through, the needle made to enter *beneath the outer skin*, and passed into the bowels as before. Four such cross stitches, only drawing together the inner part of the wound, will be sufficient to place the inner edges of the wound in contact; and the outside is now closed by a similar series of stitches in the outer skin, when the ends of the thread are tied, and some tar salve rubbed over and around the wound. The animal should be kept fasting for some twelve or eighteen hours before the operation, that the intestines may not be distended.

It is somewhat difficult to describe such an operation, so as to be understood fully; but if a person chooses, he may, when pigs are butchered and hung up, make such experiments, when opening them, as will show the position of the parts, and enable him to operate without difficulty.

WELLS—COVERED OR UNCOVERED.

"Is it better to cover wells, or leave them uncovered? I have heard old experienced men say, that water in wells that are covered is impure, full of worms, &c., and that water in wells not covered is always clear and pure. They say that the sun has an effect in purifying the water. What is your experience? FLORIDIAN."

Water to which air can have free access, is better than that from which it is excluded, other things being equal; and wells where a bucket is used, are usually better than those with pumps, owing to the frequent agitation of the water. But in places where surface impurities are liable to be lodged in a well, it is better to have them closed. We have found that a trout, kept in a well, was the surest preventive against all worms, bugs, and similar nuisances in wells. Floridian will see that, at the 42d degree of latitude, the sun could have very little effect in a well.

We are unacquainted with the goat, or its diseases, and can find no reference to such a disorder as the one respecting which Floridian inquires.

"PEARL" AND "COMMENTATOR."

WE have received some well written remarks from our correspondent, "Pearl," of Mississippi, whose communication on the subject of stirring the earth during drouth, in the August No. for 1841, elicited some remarks from "Commentator" in the succeeding number, and should lay a principal part of them before the reader, had not "Pearl" positively vetoed such a measure. But we make the following extract, on which to hang a few words in reply. Pearl says, "I believe in plowing deep—in the fall, if it can be—or in the spring, cultivating shallow, stir often, keep clean, and think it well done; and unless heavy beating rains occur, no need of a plow in after culture. Now, dear sirs, do we agree, except in moisture rising? I can understand something of the effect of the air and fine tilth, but if dry, cannot see how moisture can rise."

Our creed, founded on our own experience, may be stated in a few words. Manure your cultivated lands highly; in preparing them for a corn or other similar crop, or indeed for any, plow deep, for this not only eventually makes a deep and fertile soil, but gives room for the roots to spread and feed; in cultivating the crop, keep the surface frequently stirred, since this keeps it clean, promotes the absorption of gases, and greatly aids vegetation, as well as prevents crops from suffering by drouth; and disturb the roots as little as possible, or as is consistent with the necessity of keeping the surface friable, or open for the admission of air. So far, it is believed, we and our correspondent shall not differ. As to the effect which stirring the earth has, in the prevention of drouth, it appears to us that that operation acts two ways; first, by promoting the deposition of dew, and secondly, by promoting the capillary ascension of the moisture in the earth below. Neither the earth or the air, in their natural state, is ever entirely destitute of moisture. Stirring the earth promotes the deposition of dew, by allowing a more free radiation of heat from the soil; and it promotes capillary action, by pulverizing the soil. We have never cultivated a soil where sand greatly predominated, but it is evident pure sand would neither cause as copious deposits of dew, or facilitate capillary ascension of moisture, or retain moisture when supplied by rain, as well as soils properly constituted. Clay retains water more strongly, and conducts it more freely, than other earths. Every farmer knows that it is almost impossible to make a strong clay soil, where the necessary depth has been given by previous deep plowing and manuring, too dry.

"Pearl" is right in supposing that "Commentator" is a "brother farmer." He is so, and he is one of which the country has reason to be proud. He speaks from personal observation and experience, and therefore considers himself authorised to speak plain. "Pearl" will see that his criticisms are not confined to our correspondents, but that our own opinions are commented on with the same freedom as those of others. We recommend the following close of our Mississippi correspondent's letter to the notice of "Commentator:" "I have a great horror of being held up to ridicule, even by a farmer—it is not charitable; but tell 'Commentator' I'll practice, and give him a drubbing—if he will come down this way—only, however, in the way of a good true southern hearty welcome; and we will laugh over his logs and pearl of price, and philosophise at our leisure."

CULTIVATION OF BARLEY.

WE have received from C. C. Kelly, Esq., of Springfield, Ky., the following inquiries in relation to this crop:

"1. In what spring month should barley be sown? 2. What kind of soil is best suited to its growth? 3. How should the ground be prepared? How much seed is necessary per acre? Should it, as is recommended in Scotland, be cut before it is fully ripe? Will it not, in its crude state, be a good food for stock, and for what kinds mainly?"

Barley should be sown as early in the spring as the ground can be well fitted for its reception. We have known it sown from April to June; but it may be observed, as a general rule, that on soils equally prepared, the early sown grain always gives the best samples. From the 1st to the 15th of May may be considered the usual time of sowing. It rarely suffers from spring frosts.

Any soil that will produce good roots, or clover, will grow barley. It should be rich and friable, moist, but not wet. Cold, heavy, tenacious soils, are unfit for this crop. Stagnant water is destructive to it.

Barley succeeds best after hoed crops, potatoes, turneps, or corn, crops that require heavy manuring, and keep the ground clean. Manure, applied directly to this crop, is not advisable, as it gives too much straw, is apt to lodge it, and injures the berry. It is frequently sown on clover sward; and in all cases, the soil must be made fine for the reception of the seed.

Thin skinned, plump, and rather pale seed is to be selected. Soaking the seed in a weak solution of nitre, for twenty-four hours, has proved of great service. We use from two bushels to two and a half bushels per acre. Poor soils require more seed than rich ones, as the plants do not tiller as much. In England, greater quantities of seed are used than here, from three to four bushels being the amount recommended.

Barley should never stand, before cutting, until it is *dead ripe*. When the ears droop and bend down to the stems, and lose their previous reddish cast, barley should be cut. The straw will now be of a yellow color, and if allowed to stand longer, becomes brittle, the heads break off, and thus easily wastes. Cut early, the berry will be finer and of brighter color than if allowed to stand longer.

Barley is a good food for any animal, but is generally grown for the purpose of making pork, for which it is only exceeded by corn. Barley, if fed to horses, should be ground, and fed with cut straw. If given them in the same manner and quantity as oats, it is apt to produce fever, a proof that its nutritive powers are great, and that some more bulky substance is required for the distention of the stomach.

VARIETIES OF THE PARSNEP.

MESSRS. EDITORS—I would ask whether you have seen or heard of more than one kind of parsnep, the common or Dutch Parsnep? Some twenty years since, when I resided in Ohio, a kind of parsnep, called the Guernsey, was introduced by some emigrants from the island of that name in Great Britain, and soon came into general use, as they were larger, richer, and of superior flavor to the common ones. The method of cooking might have had some influence in producing this superiority, which was in baking the root with pork, or boiling it with a small quantity of water only. I sent some of the seed from Ohio to this place, where for one or two years they appeared to retain their fine flavor, as in Ohio; but they seemed to degenerate, and become more in appearance and flavor like the common parsnep. For this degeneracy, I have been unable to account. Would it not be advantageous for farmers in the northern and middle states to import their seed from Guernsey? WM. JENNISON.

There are several varieties of parsneps, such as the Dutch, Garden, and Guernsey, of which the latter is the most highly prized. Loudon says, "The variety best suited for the field, is the large Jersey, (or Guernsey,) the seed of which should be procured from the island, as that of the Garden parsnep, sold by the seedsmen, never attains the same size." Prof. Low says this parsnep is most approved of for cultivation, whether in the garden or field. Of the Guernsey parsnep, there are two kinds, "one of which is fusiform, and strikes deeply into the earth; the other becomes thick, and tends to the napiform." The cause of the degeneracy may arise from the soil, or in consequence of the seeds being mixed with the common or inferior qualities. The fact that British farmers find it necessary to get their seed from Guernsey, is conclusive as to the propriety of our obtaining it from the same source. Parsnep seed should always be new, as two years old seed does not come up freely.

☞ SOME other inquiries, now on hand, will be answered hereafter.

DICTIONARY OF TERMS USED IN

Agriculture and its kindred Sciences.

HERD BOOK.—The Herd Book of the Improved Short Horns in England, is to them what the Book of Heraldry is to the proud nobility of the same country. In each is to be found the claim to distinction and purity of blood, and by its authoritative records and decisions, all pretensions must be judged. When Collings, Coates, Berry, and a few other enterprising individuals, had by their skill in selection and breeding, produced a race of animals superior to any hitherto seen in Britain, and public attention began to be directed to them, the prices they commanded excited the cupidity of less skillful breeders, and cattle were sold as the improved breed which had no title to that distinction. To prevent these impositions, and give the public a standard by which all cattle offered as Improved Short Horns might be tried, Mr. George Coates prepared the Herd Book, in the successive volumes of which the originals of this famous breed, with their most celebrated progeny in all their ramifications, down to the present time, are regularly numbered and recorded, and a glance at this book will show the blood of any Short Horn that has just claim to the title. The number on record at the present time amounts to several thousands, no inconsiderable number of which are at the present moment in the United States. So widely disseminated has this celebrated breed become in this country, that the propriety of an American Herd Book has been suggested, and may ere long be found necessary. The Cultivator, and some other agricultural journals, contain many pedigrees of the best stocks and animals, and by generally registering them in this way, with undoubted reference to the Herd Book, impositions and frauds, if attempted, could be detected, for every purchaser might remember that there is no pure Short Horn whose pedigree cannot be fully traced in the Herd Book. The Herd Book now extends to three volumes, and a fourth is soon to appear.

HIDE-BOUND.—This is a disease of the skin of animals, which gives a peculiarly rough and staring appearance to the hair, and is not unfrequently indicative of a general derangement of the health of the animal. The skin of the hide-bound animal loses its pliability and flexible nature, becomes stiff and seems to adhere to the muscles and bones, and the extent to which this stiffness and feeling of adhesion exists usually marks the severity and intensity of the cause in which it originates. Hide-bound is always attended with more or less fever. The oil which is formed from the innumerable glands or pores of the skin is dried up, and the minute scales which form the outer surface of the skin, no longer yielding to the hair, they, as the skin dries, turn the hair every way, giving that irregular and unhealthy appearance so characteristic of the disease. Hide-bound is much oftener a symptom of disease than a primary one, and the efforts at cure must be directed to a removal of the cause. A dose of physic, (Youatt recommends eight ounces of sulphur with half an ounce of ginger,) and a few washes should be given. Medicines calculated to rouse the action of the skin, such as sulphur, nitre, antimonial powder, or ginger, in small quantities, should follow the physic. When hide-bound follows low keeping, a change to a more generous diet, (gradually, however, and avoiding active tonics) will usually effect a cure. Mr. Youatt says the best alterative to remove hide-bound in the horse is levigated antimony, nitre, and sulphur; and given in doses of two drachms of the first, three of the second, and four of the third, and repeated every night in a mash or in the form of a ball.

HOE.—Next to the plow, the hoe is one of the most effectual implements of modern tillage, and in countries where Indian corn is grown, may be considered indispensable. There are many kinds of this implement, adapted to its various uses in the garden or the field, and in the form of them and the superiority of material and construction, the greatest improvements have, within a few years, been made. The blade or cutting part of a good hoe should be sufficiently hard to keep a good edge and not batter, and at the same time be so elastic and fine tempered as not to easily break. The horse hoe, or cultivator, as it is frequently called, is a great labor-saving machine, most admirably adapted to the cultivation of corn and root crops, particularly in those parts of the west, where, from the nature of the soil, its freedom from weeds, and the quantity of land to be operated upon, much of the labor must be performed by the horse. The great value of the cultivator, or horse-hoe, lies in its keeping the surface free from weeds, light and loose, and not disturbing the roots of the plants by running deep like the plow.

HONEY.—This is a well known substance, collected by the common honey bee from vegetable blossoms, and stored in combs for its own use. The most honey is made in regions of moderate temperature, such as the Mediterranean, Archipelago, or the Island of Cuba. It is also abundant in the United States. Honey when made from poisonous plants, partakes of their qualities, and death has been known to ensue from such a cause. On the south-east coast of the Black sea is a district, the honey of which is famous for causing a temporary madness in those who partake of it when new; age deprives it in a great measure of this power. This effect is owing to the honey being mostly the product of the *Rhododendron ponticum*, which plant (a species of laurel) abounds in that region. It has long been the practice to destroy the bees in order to obtain the honey; but experience shows this custom is as unnecessary as it is cruel and barbarous. A variety of hives are now used in this country, in which the honey made is so stored in boxes that it can be taken without injury to the bees, or disturbing them, at the pleasure of the owner. The bees may also in the common hive be so stupified by the smoke of some narcotic substance, (the common meadow puff-ball gathered and fully dried is one of the best articles for this purpose,) that the honey can be taken away without danger, and without permanent injury to the bees. The honey made on a farm may be considered a clear profit, as the expense of the apiary is usually trifling, and honey is a beautiful as well as delicious article of food.

HOOVE.—Hoven, Bloat, or Hoove, is the name given to a disease in animals, caused in most cases by taking them from a poor or innutritious food, and putting them into a rich and luxuriant pasture. The animal eats greedily, the stomach is overloaded, the rumen ceases to act, the food cannot circulate through its cavities, fermentation ensues, large quantities of gas are extricated and distend the stomach, the animal ceases to eat, and is evidently much distressed, the whole belly is blown up or inflated; in horses the blood is forced to the brain and staggers usually follow, while in cattle this symptom rarely occurs; the tongue is protruded, and unless the animal is relieved, death must speedily ensue, and most generally by rupture of the stomach. There is no doubt as to the cause of this complaint, and the object in cure is to permit the escape of the imprisoned gas, and prevent its formation. Moving the animal about, or the shock caused by dashing pailsfull of cold water upon it, will sometimes cause eructations of gas, and relieve the animal. Alkalies (and the best of these is ammonia) will prevent the formation of gas if it can enter it, but unfortunately the same cause which prevents the escape of the gas, also prevents the entry of the alkali into the stomach, and if given it frequently passes on to the next stomachs where there are no acids to neutralize. At the commencement of hoove, any kind of oil will frequently relieve the beast, as producing a disposition to vomit or purge, but at a later stage it will produce little effect from the same cause which prevents the action of an alkali. The probang, a hollow flexible tube of leather generally, (but we have known some valuable animals saved by an extempore probang, made of lead pipe) with a bulb on the end to prevent laceration, is the best instrument to relieve animals; but where such an instrument is not at hand, the knife may be used for the liberation of the gas. "The safest point for this operation," says Mr. Youatt, "is the following:—Suppose a line to be drawn along the vertebræ from the haunch bone to the last rib, and two other lines of equal length to extend down the flank so as to form an equilateral triangle, the apex of the triangle, or the point where these lines would meet, would be the proper place for the operation, for in that place there is no danger of wounding either the spleen or the kidney." Clover, rowen or fog, or turneps, will produce hoove; and some animals are much more subject to it than others. The farmer will do well to fit such animals for the butcher as soon as he is able.

HOP.—This plant, the *Humulus lupulus* of the botanist, has long been cultivated for the sake of its flowers, which contain a bitter principle much used for giving a bitter flavor to beers and fermented liquors, not only preserving them, but rendering them far more healthy than they could be without it. Indeed the home-made small beer of the farmer, made of malt and hops, and divested of the narcotic or alcoholic ingredients so common in other beverages, may well be considered one of the best of drinks, and a return to which would constitute a fortunate era in the health as well as morals of the community. What are called wild hops, are the male plants of the common hop, and are of no value. The hop is propagated by slips or by roots. The plant yields nothing the first year; in the second they produce their first crop of flowers, and are in full bearing the third year. A plantation will last from twelve to fifteen years, when it will require renewal. Hops require a rich deep soil, rather moist than otherwise, and must be manured occasionally.

HORN.—This is a substance composed chiefly of condensed albumen, combined with a small portion of phosphate of lime, and a small and varying portion of gelatine. In this latter respect it principally differs from bone, which is principally phosphate of lime and gelatine. In many species of animals the males only have horns; and as a general rule the horns are not fully developed until the animal is capable of perpetuating the species. Horns may be divided into four kinds: 1, those of the ox, sheep, goat, and antelope; 2, of the camel leopard or giraffe; 3, of the rhinoceros; and 4, of the deer kind. The substance of the horn is furnished by the skin, and the bony part is secured to the bones of the head by anchylosis. Horns have not been exclusively confined to animals, as the records of medicine show instances in which these appendages have existed on both man and woman. The fixed alkalies readily dissolve horn into a yellow saponaceous fluid. The scrapings of horn are one of the most powerful of manures, and its effects are very durable. Horns are converted to many uses in arts and manufactures.

HORSE-FLY.—There are several insects known by the name of the horse-fly, and which are at all times troublesome, and sometimes fatal to this noble animal. One of these, which is perhaps the most common and dangerous, is the one that produces the bot, (*Œstrus equi*,) a fly resembling the humble bee only lighter colored, and the female is provided with a long ovipositor folding under her belly, with which she lays her eggs on the hair of the legs, knees, &c. of the horse, and these being licked off and swallowed, a small larvæ or grub is produced which is called a bot, and which not unfrequently, by their numbers and irritation, if not by their voracity, destroy the horse. Another is the fly which produces the bot called the *fundament bot* (*Œstrus hemorrhoidalis*.) This fly lays its eggs on the lips of the horse, whence they are licked off and swallowed, and thus get into the stomach. They are most frequently found in the *anal* opening of the horse, and hence it was formerly supposed that the female deposited its eggs in that place. Injections of animal oil ensure the destruction of this bot. Another is the red bot fly, (*Œstrus nasalis*.) This insect is nearly the size of the honey bee, and the female lays her eggs in the nostrils of the horse, ass, stag, and sometimes of the sheep, though it differs from the *Œstrus ovis* or sheep-fly. The horse is rarely killed by this insect, though the larvæ in the nostrils are very troublesome, and when large enough they are sneezed out and pass into the pupa state in the ground. Sheep and deer die when they happen to have many of these larvæ in their heads. Another variety is the horse-fly proper, or *Hippobosca equina*, which lives chiefly on horses, but sometimes attacks cattle and other animals. From its appearance, and the pertinacity with which it clings to the animal, it is sometimes called the spider fly or the forest fly. There are some other flies of the Tabanis tribe which are very troublesome to horses, but the above are the ones generally classed as horse-flies by naturalists. For further information on the flies that attack or prey on animals, the reader is referred to Koollar, whose work on predatory insects is one of the best extant.

HORSE-RAKE.—This is one of the most valuable of agricultural implements, considered as a labor-saving one, and for raking hay on all smooth meadows, and for several other purposes, should supersede the hand-rake altogether. There are two kinds, one called the single horse-rake, or which has teeth only on one side of the head, and the other called the double or revolving rake, which, on favorable ground, is much to be preferred. Such a rake will do the work well, expeditiously, and with far greater ease to the laborer. It is also very useful in raking over the stubble after wheat or barley has been harvested, and experience with the rake shows that a much greater loss was sustained (even when the crop was gathered in a careful manner) by a neglect in gathering with the rake, than was generally supposed. It is true, all that is left may not be lost, as the hogs may be gleaners, but we believe there are not many farmers who do not lose enough by not gleaning their fields with a rake, to buy a new one every year.

HOT BED.—It is sometimes desirable for the farmer to grow plants for the maturity of which our summers have not sufficient length, or to bring others forward at an earlier period than can be done in the open air, and in such cases a hot bed or forcing bed may be resorted to with success. Plants may be started in these, and when the frosts of spring are passed, be transplanted into the garden, and thus a maturity of the fruit secured. Hot beds are made with a frame to enclose the manure, or without, as suits the gardener. Horse manure is preferred to any other for this purpose, to be placed in masses of such depth, that when fermented there will be a thickness of at least three feet, and of such size as the covering frames demand. Experience shows that beds enclosed in a box or frame of boards do not dry up as rapidly as those without; but as the frame work cannot settle with the manure, the latter is sometimes so low when the fermentation has ceased, as to place the plants too much out of the direct rays of the sun. The earth placed on the manure should be rich garden mold, and of ten or twelve inches in thickness. If radishes are to be grown, a still greater depth is admissible. Too great a depth, however, will prevent the requisite heat, and much lessen the value of the bed. Some care is requisite in regulating the temperature by lifting and moving the glasses, and in pleasant days, air should have free access to the plants. A liberal supply of water of a moderate temperature (rain water is the best) must be given to plants while growing in the bed.

HUBBACK.—This is the name of the celebrated progenitor of the Improved Short Horns, and in the hands of Charles Collings, did for the English cattle what the Godolphin Arabian did for their horses. Mr. Youatt remarks, "that there are no superior Short Horns which do not claim descent nearly, or remotely, from Hubback." The origin of this bull appears to be involved in some obscurity. He was purchased by Waistall and R. Collings, when a calf, of a poor man who grazed his cow on the highway, and his dam was remarkable for the ease in which she was kept in high order, a quality possessed by Hubback to such a degree that a disposition to fatten prevented his usefulness as a bull but a few seasons. That Hubback was of pure Short Horn blood on one side cannot well be doubted; but the present race of Improved Short Horns have descended from a cross between Collings' S. H. bull Bolingbroke, a descendant of Hubback, and a beautiful red polled Galloway cow. Perhaps there is not another instance on record where a single animal has effected more important results, or stamped the character of excellence more decidedly on his descendants than this bull; and the example of the Collings, will go down to remote ages, as a proof of what perseverance, accompanied by a sound judgment, can effect in improving a race of cattle.

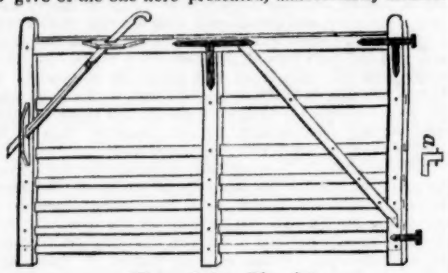
Every farmer should have a work shop.

Original Papers from Contributors.

FARM GATES AND IMPLEMENTS.

Messrs. Gaylord & Tucker—I send you for my present contribution, three drawings, with such a description of each as I hope will prove intelligible to all who may wish to make any use of them. The first is of a farm gate, similar in most respects to that of which I sent a sketch to the Farmer's Register, two or three years ago. The difference consists in the latch, and in having but one diagonal brace on opposite sides, which I am now convinced is sufficient, as I have used a gate of this kind for nearly two years, without any brace of the sort, and it has not swagged more than the springing of the brace edge-wise has caused it to swag. As to the latch, it is the cheapest and most simple that I have ever seen, at the same time that it is quite as effective as any other of which I have any knowledge. The one represented in the former drawing was a contrivance of my own, but this, which I met with in the county of Loudon, is decidedly better. My inducement to send you the present drawing is, that among all the numerous representations of gates which I have seen in the Cultivator, I have not examined one that is not liable to some objections. Having paid much attention to the structure of gates, for several years past, I have taken pains to note every thing in each which seemed worthy of imitation, and in this gate I have endeavored to combine the advantages of all. There is nothing in it of my contriving but the upper hinge, and simple iron that fastens the center-stem to the upper bar. Consequently the only merit I claim is that of combining the inventions of others in one subject.

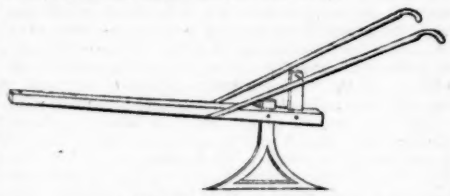
A good gate is a thing which commends itself, highly to every farmer, for we may truly say in its praise, that next to a good fence, it helps much to keep *in* our own stock, to keep *out* other people's, and above all, to keep the peace between testy neighbors. I hope, therefore, that my brethren will not deem the description which I am about to give of the one here presented, unnecessarily minute.



[*Farm Gate.*—Fig. 1.]

This drawing, [fig. 1,] represents a gate nine feet wide from out to out, and five feet high. The size of the hinder stem is four inches by three. The center and front stems are three by two and a half inches. All the bars are three inches wide, but the upper one is square behind, tapered to two and a half inches before. The other bars are one inch thick at the hinder end, tapered to five-eighths at the front ends. Each tenon has a shoulder three-fourths of of an inch deep; but the shoulders of the hinder tenons are cut in the *lower* edge of the bars, and of the front tenons in the *upper* edge, as indicated by the dotted lines across the front and hinder stems, at the ends of the second bar next to the top. These shoulders thus cut, aid both before and behind, in counteracting the tendency to *swag*, which is the chief defect of all gates. This tendency is still farther counteracted by the diagonal braces, which, being pinned across every bar, and let into the hinder stem near the lower end, as well as into the upper bar about the center of gravity, which is behind the middle stem, (as the hinder part of the gate is much the heaviest,) will almost of itself suffice to prevent swagging. But the most effectual counteraction of the whole is the upper hinge. This consists of two right angles, one on each side the gate but united by the shank of the hinge. The opposite parts of this hinge are two inches wide, seven or eight inches long, and one-fourth of an inch thick. One-half this thickness being let into the wood, and the opposite end of the hinge fastened together by screw-bolts passing through the top bar and hinder stem, must effectually prevent all swagging, unless the hinge should break, or bend edgewise, which is hardly possible, when fastened as it is, at the ends, and sunk into the wood. The iron which fastens the top bar to the center stem is an additional security against swagging. It is of the same width and thickness as the upper hinge, and is also sunk into the wood. One of the screw-bolts which fasten the ends to the wood should pass through the upper end of the diagonal braces. The lower hinge is represented by the drawing marked *a*. It has two sides four inches long, two wide, and one-quarter of an inch thick. These are let into the wood one-eighth of an inch, and fastened by a screw-bolt passing through the wood. The shank of this hinge should be two inches longer than that of the upper hinge; and the hook upon which it hangs being driven into the post two inches beyond a perpendicular line let fall from the hook of the upper hinge, will cause the gate, when opened, to shut of itself, although the posts themselves be fixed perpendicularly, instead of the unsightly position of leaning inward, which is the common contrivance for causing a gate to shut of itself. The latch, (which I particularly recommend,) should be made of hard, well seasoned wood; yellow locust is best. It should be about twenty-six by twenty-seven inches long, and so fixed as to cross the upper bar and front stem diagonally, at eighteen or nineteen inches from their junction. A good size for it is two inches wide by one-fourth thick. This will allow the end which slides into the catch to be five-eighths of an inch thick, with a shoulder inside to prevent the end from projecting too far beyond the outer side of the stem. The upper end is of the same thickness as the lower end, with a shoulder far enough below the mortice in which it slides up and down, to allow the lower end to be drawn out of the catch; you may then immediately let go the handle of the latch, and pass through the gate, for the force with which it shuts of itself is more than sufficient to move the latch upwards, when its own weight instantly brings it back into the catch.

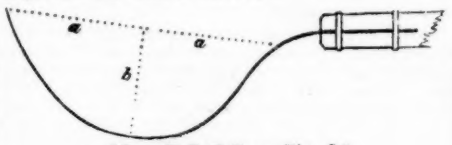
I have made the foregoing description more paricular than some perhaps, may deem necessary. But as I myself have generally found the common descriptions of implements and machines not sufficiently minute for *me* to understand them, I have thought it probable that many others might be in my own situation. I therefore determined, if I erred at all in my explanation, it should be my making it so full as to be perfectly intelligible to all, even the dullest, who may take the trouble to read it. Let me add, in conclusion, that, if any person will make a gate exactly after the foregoing directions, and of good, well seasoned timber, I will agree, should it ever swag while the timber remains sound, that he shall denounce me in your paper as one whose recommendation is not worth regarding on any subject whatever.



[*Single Coulter.*—Fig. 2.]

The second drawing [fig. 2,] represents a single coulter, such as I accidentally met with some years ago, and have used ever since, in preference to any other that I have ever seen. It is quite as simple and cheap as any yet known in my part of the country, and better in two respects. You may use it longer without any repairs, as it has two points exactly alike, both of which may be worn out before the coulter is sent to the shop. And, secondly, the hinder point enables the one in front to run more steadily while at work. A single horse will draw it easily in most of our lands, after they have been well broken up by the plow; and it is particularly useful in the culture of corn, and other crops planted in straight rows, for the purpose of securing deep tillage, in the early stages of their growth, in soils too shallow to admit of being deeply plowed without great injury. No implement that I have ever tried, (and I have used every variety yet known to us,) is of such advantage in the early culture of corn as the single coulter, especially to guard it against drouth.

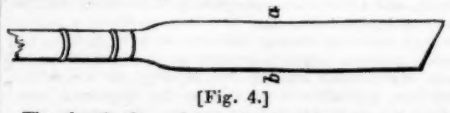
The lower part of the one represented, is here made out of inch square iron, flattened and well steeled at the points, and is twenty-two inches long. The upright part is of bar-iron, about three inches wide by five-eighths thick, and should be eighteen inches high from the top to the bottom of the square bar. The front and hinder edge of the upright should be left square, as it is much easier to break, than to cut a root with a coulter. A half inch screw-bolt will suffice to fasten the upright in the mortice through the beam, which mortice should have a strong iron plate above and below, made so exactly to fit that part of the coulter, as to keep it firm in its place. The usual pitch for the beam of a two-horse plow should be given to the beam of the coulter.



[*Corn-Stalk Cutter.*—Fig. 3.]

The third drawing (fig. 3.) represents a very simple and cheap implement, (I know not by whom contrived,) for cutting up corn, and I venture to commend it as far preferable to the hand hoe which is commonly used for that purpose. Having never heard any name for it, I propose to call it the corn-stalk cutter. The curved iron is two inches broad in its whole length, from the point to its insertion into the handle, which is from twenty-one to twenty-four inches long. Its cutting edge is made very sharp, and of well tempered steel; the back edge is blunt, and about three-eighths of an inch thick. From the point to the termination of the curve is seven or eight inches, which distance is indicated by the dotted line, *a. a.* The dotted line *b*, shows the depth of the curve, which should be about two and a half inches.

In using this implement, the laborer cuts up two rows of corn-stalks at a time, by taking hold of each with his left hand, and cutting with his right. The next man to him does the same, and they throw their stalks together, in the space between them; depositing the butends all the same way, which makes one picker-up to serve two cutters, as he can take an armfull at a single grasp; whereas each cutter with the hand-hoe required a picker-up to follow him, as the corn-stalks fell in every direction, and must be taken up one or two at a time, before enough can be gathered to fill the arms, which retards the stooking much more than the other mode. Another advantage in using the corn-stalk cutter is, that its stroke rarely ever jars off the ears of corn, which the stroke of the hand-hoe frequently does, and thereby causes much more picking up.



[Fig. 4.]

The fourth figure is merely to show the size and form of the iron before it is bent,—*a* is the cutting edge *b*. the blunt edge, three-eighths of an inch thick.

I remain, gentlemen, yours with regard,

James M. Garnet.

Essex county, Va. Nov. 25, 1841.

BEAUTIFUL CORRESPONDENCE BETWEEN THEORY AND PRACTICE.

Liebig's "Organic Chemistry in its application to Agriculture and Physiology," has been repeatedly noticed in the Cultivator. In that valuable work, the author observes, (p. 190, of Dr. Webster's 1st Am. edit.) that,—"It is the duty of the chemist to explain the composition of a fertile soil, but the discovery of its proper state or condition belongs to the agriculturist."

The necessity of *potash* and *lime* as ingredients in the growth and development of plants has been theoretically deduced from chemical and physiological facts by Dr. Liebig. "It is the greatest possible mistake (he says, p. 196,) to suppose that the temporary diminution of fertility in a soil is owing to the loss of humus; it is the mere consequence of the exhaustion of the alkalies."

We also read in the same author (p. 198,) as follows:—"Again, how does it happen that wheat does not flourish in a sandy soil, and that a calcareous soil is also unsuitable for its growth, unless it be mixed with a considerable quantity of clay? It is because these soils do not contain alkalies in sufficient quantity, the growth of wheat being arrested by this circumstance, even should all other substances be presented in abundance."

Indulge me, Messrs. Editors, with a few more quotations from a theoretical writer:

"Wheat will not grow on a soil which has produced wormwood, and vice versa, wormwood does not thrive where wheat has grown, because they are naturally prejudicial by appropriating the alkalies of the soil."—(Liebig, p. 199.)

Wormwood is a plant from the ashes of which a large quantity of potash may be obtained. It was formerly cultivated for the purpose of extracting potash from it, and the product was then called *salt of wormwood*, now known under several forms by the names of saleratus, salt of tartar, potash, pearlash, &c.

"All plants of the grass kind require silicate of potash." (Liebig, p. 200.)

Silica or flint dissolved by means of potash, forms in the soil *silicate of potash*, which is absorbed by grain and grasses, and hardens their stalks, thereby enabling their slender bodies to stand erect.

Again our author says, (p. 200) that, "Potash is not the only substance necessary for the existence of most plants; indeed it has been already shown, that the potash may be replaced by soda, magnesia or lime; but other substances besides alkalies are required to sustain the life of plants."

By these and other remarks of the learned author in the above mentioned work, we find that potash and limes are essential ingredients to be applied, as or with manures, in the cultivation of grains and grasses. Thus far we are guided by theory and chemical investigation. Now let us see how far facts corroborate theory.

In the November number of the Cultivator, p. 182, there is a valuable communication by J. N. Keeler, on the use and application of New-Jersey marl as a manure. This article, so rich in fertilizing qualities, and now so advantageously employed in the poor and sandy districts of New-Jersey, is not like the shell marl of Virginia and other southern states, nor like the white calcareous marl of Ulster county in the state of New-York, but it is a greenish earth, mixed with sand, clay and other ingredients. The application of this variety of marl, (if it may be so called,) having been found the means of producing fertility in one crop, has been successively and successfully applied to others, until it is now applied to all. The cause of its fertilizing effect was only known to the farmer by his experience and practical application. The material thus discovered to be a useful manure, was sufficient for his purposes, and he did not search into the science or philosophy of its action, but used it and profited thereby. Here, then, we have *practice without theory*, and in the chemical investigations of Prof. Liebig, as above quoted, we have *theory without practice.*

With respect to the New-Jersey marl, Mr. Keeler informs us, that,—"It is applied to (Indian) corn when planted, or in its early growth; to potatoes in the hill or row, before planting or after, (but generally covered with them;) to winter grain; and in short with those farmers who have abundance of it, it is a 'panacea,' good for all kinds of crops."

Now, what ingredient is it in this marl, which causes fertility?—Professor Rogers, (State Geologist of New-Jersey,) has analyzed it and found that it consists of a peculiar *green sand, clay*, and *quartzy sand*. The green

sand is in the greatest proportion, and when that was separately analyzed, it furnished *nearly thirteen per cent of potash*. The professor says,—"Abundant evidence might be adduced to prove that the true fertilizing principle in marl is not *lime* but *potash*." Here then we have the opinion of Prof. Rogers agreeing with the theoretical views of Dr. Liebig, and the practical application of New-Jersey marl, producing a striking correspondence between theory and practice in the recommendation and use of *potash* as a fertilizer.

Again, Mr. Keeler observes that,—"Since the introduction of *lime* among us (thanks to the genius of improvement,) many of our sandy loams, by a top-dressing of the two together, have approximated in yield to the best wheat lands of Pennsylvania. It is spread broadcast (marl and lime,) over fallow at the rate of five tons of the former, to thirty bushels of the latter, per acre. Experience has demonstrated that the combination is one of great usefulness; that the efficacy of the one contributes to the speedy action of the other; that the noxious agents contained in the clayey marl, when brought in contact with lime, are rendered inert to vegetation, but more properly speaking, by mutual affinities converted into efficacious substances. Pasture lands, whether meadow or upland, that have afforded but a scanty herbage, are astonishingly benefited by a slight application of marl; but the more general method of applying it, is to spread it broadcast over a grass sward following a winter crop. Its most decided effects I am inclined to believe, are on a clover ley; and so powerful are its fertilizing powers, that when scattered over those melancholy fields, so sterile as to produce only a stunted growth of wild weeds, a luxuriant crop of white clover follows."

Here again we have the practical and useful application of *lime* in conjuction with a marl containing *potash*, producing a further correspondence between theory and practice in the utility of both *lime* and *potash* as fertilizers.

May we not draw some useful inferences from these facts? Wood-ashes have long been known and used to fertilize the soil and increase its cultivated productions. Few or none of our farmers, however, have attributed their beneficial effects solely to the potash it contains. Had this been the case, they would have rejected the spent ashes of the soap-boilers, and employed unleached ashes. Of late years the cultivators of the soil in the neighborhood of New-York city, use the unleached ashes, applying about a gill to a hill of corn, before the first hoeing. They have been applied broadcast upon other crops, and mixed with the barn-yard manure. The spent ashes contain lime, which is put in the leach-tubs by the soap-boilers, and notwithstanding these ashes are deprived of most of their potash, they nevertheless produce fertility. This fertility must arise from the small remains of potash, and the lime they contain. If then, we find refuse or leached wood-ashes doing so much service we must surely conclude that pure unleached ashes would be additionally useful.

The barren plains of Hempstead in Queens and Suffolk counties, of New-York, may, and have been rendered productive by ashes. Many acres of these barren lands have been added to the adjacent farms on its borders, and kept in a fertile and productive state by ashes. The entire plain, many miles in length, might be reclaimed by employing potash and lime. Situated in the center of Long Island, distant from six to eight miles from the water on either side, the transportation of manure is an objection. But the carriage of unleached ashes and lime in barrels, by water, or on the Long Island railroad, would not be so costly as more bulky manure; and even potash itself might be conveyed in barrels, mixed with the soil, and distributed as manure there and elsewhere. Has not Hempstead plain once been a prairie, and its rich soil been exhausted by its constant employment as a common for pasture of sheep and cattle of the neighboringtowns?

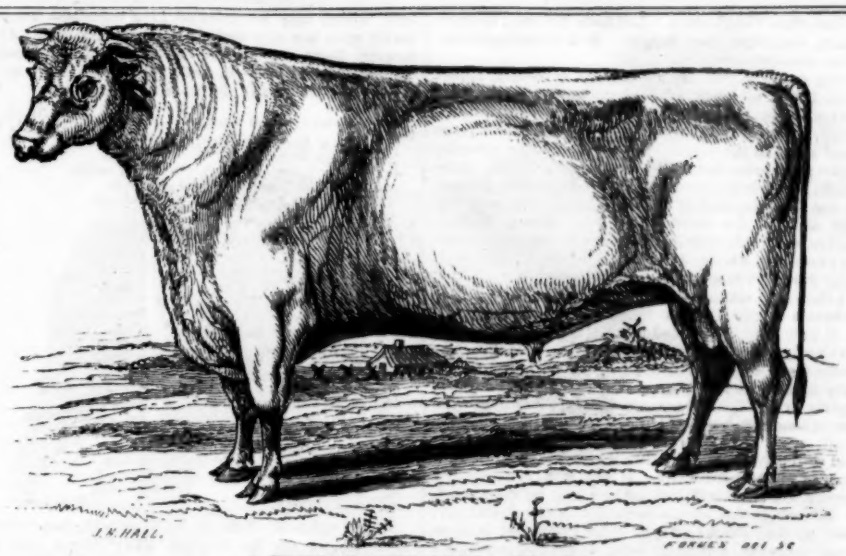
And do not the rich prairies of the west owe their fertility to the practice pursued by the aborigines, of annually burning them and thereby enriching the soil with a yearly supply of potash?

May we not profit by the union of theory and practice as above related. The New-Jersey marl contains *sand* with potash, a small portion of *clay*, some *iron*, and occasionally a little *lime*, and other ingredients of no moment. Now cannot those who live on sandy soils, manufacture an article similar to Jersey marl, by a mixture of sand and clay and potash? Those who occupy clayey soils, want only sand and potash, the latter to be purchased in barrels for easy transportation. If we wish to make a compound as mentioned by Mr. Keeler, of marl and lime, we have only to mix the due proportions of sand, potash, clay and lime. A barrel of stone-lime, burnt at Athens on the Hudson river, contains about three bushels, and when slaked will make from eight to ten bushels. Shell lime is principally used hereabouts and in New-Jersey, but it frequently contains so many unburnt shells, that the writer is possessed with the notion that stone lime purchased in barrels and slaked when and where wanted, is preferable, and the cheapest. He feels so sanguine on the subjet that he intends an experiment with *sand, lime* and *potash*, (requiring no clay, as his soil is argillaceous) and if he succeed, you may hereafter hear further from him.

RICHMOND.

Staten Island, N. Y. Dec. 6, 1841.

LARGE HOGS.—The Messrs. Gidneys of Newburgh, N. Y. recently slaughtered six hogs, which weighed 3,171 lbs. The heaviest weighed 630 lbs.—the lightest 430 lbs.—average weight, 528 1-2 lbs.



A SHORT HORNED BULL.—[Fig. 5.]

THE above is a portrait of *Bernard*, the property of Dr. JOHN A. POOL of New-Brunswick, New-Jersey, which obtained the first prize at the late Fair of the American Institute. Though but three years old, he had previously received four first prizes at different Fairs, one of which was from the New-Jersey State Agricultural Society.

BURNING TURF.

MESSRS. GAYLORD & TUCKER—In the year 1830, I made an experiment on the burning of blue grass turf; and thinking it likely that its promulgation may be of some service, I send it for publication.

EXTRACT FROM MY MEMORANDUM BOOK.

August and September, burnt four stacks of blue grass turf, which produced about three thousand bushels of ashes. The turf was taken from about three acres of sour ground, which last year was in wheat, and which absolutely produced no grain. The turf was burnt and the ashes scattered on the same ground on which it grew; and the process was as follows: a circular wall of turf was made, about ten feet in diameter, about two feet high, and eight or ten inches thick, into which was cast a cart load of dry wood, which was set on fire, and when the blazing was nearly over, and the interior at its greatest heat, the turf was cast in promiscuously about fourteen or fifteen inches deep, and more turf was added in small quantities as required. The shape of the stacks was conical; the exterior was packed neatly, so that it should not fall, and the height was about ten feet. The turf had been plowed up about two weeks before the burning began, and although but moderately dry, and more than nine-tenths of the weight of the sods was poor clay, yet to my surprise it burnt well, though slowly. By a regular course of feeding, two of those stacks produced black and sooty ashes; the other two I believe I injured by projects. Into one of the last mentioned I frequently thrust a long crow-bar, thereby giving it air, whereby it was caused to burn freely; the black smoke which issued was evidence of the discharge of soot, and the ashes were left pale. The other I fed too fast, and therefore I had to pull it down and reburn. For a stack of the above mentioned size, from ten to fifteen inches of sods should be added in twenty-four hours, and about four times during the day; say sunrise three inches, ten o'clock three inches, three o'clock three inches, sundown four or five inches. But this will depend on the state of the weather and turf; at any rate, be cautious in hurrying the process, remembering, however, to lose nothing in smoke. The exterior of the stack will not burn, consequently it stands well until pulled down, which should not be done until moderately cool. My ashes were scattered on the ground from whence the clods were taken, and in 1831, without other manure, I harvested therefrom a good crop of wheat.

The labor which I spent in picking up and burning the turf, and spreading the ashes was perhaps worth		$10
The riddance of the pest was worth, say .	$10	
3,000 bushels ashes, at 1 cent per bushel,...	30	40
And my profit is, then,.....		$30

or, in other words, I make four hundred per centum on my outlay.

The plowing of turf for the purpose of burning should not be more than about three inches deep, and never mind to lead off much earth by the harrow or otherwise, for the more earth one can burn the better, as by this means the acid is dissipated by the burning, and absorbed and counteracted by the manure.

By making four stacks or mounds on an acre, the greatest distance to move turf would be about eighteen yards; and my estimate is, that two hands with a hand barrow can attend ten or twelve fires, after the first day. The turf should be packed somewhat after the manner of brick, to guard against rain, and perhaps it would be best to make those packs immediately around the stacks, and then one old man or woman would be sufficient to keep ten or twelve fires going.

Land thus turfed, and intended for winter grain, I would replow some inches deeper after the turf is off, and after sowing the grain and ashes, harrow all in together; indeed August and September are the proper months for this operation, and the ground being thus prepared at the proper season for winter grain, it should therefore be sowed. I have never attempted to burn any other turf than this blue grass, but suppose any kind would burn equally well; and the richer the earth, certainly the freer it would burn.

ZA. DRUMMOND.

Amherst, Va., Nov. 1841.

ON FEEDING APPLES TO STOCK.

MESSRS. EDITORS—Permit me to call the attention, through your valuable journal, the Cultivator, of my brother farmers, to the subject of feeding apples; and especially of those who have large orchards, remote from market, and make cider of them, and then perchance sell it at a dollar per barrel—as I think I can show them that they can dispose of them to much better advantage by feeding them to their cows and swine. Both are exceedingly fond of them. I am well aware that there exists a great prejudice against this practice; but eight years experience warrant me in saying, that it is not supported by facts, and that it is mere prejudice. The common opinion is, that apples dry up milch cows, and many think, that they will kill them. I have often heard farmers relate how they lost a valuable cow or ox, and how such a neighbor's cows broke into his orchard one night, and he lost a number of them, and those that did not die, nearly or quite lost their milk. Now the same result would have followed had the cows got to a pile of potatoes or bin of oats. But I must confess that I was a believer once myself, and indeed came very near losing a very valubable cow, by eating too many apples, about ten years ago. It dried up her milk entirely; thus confirming all the arguments against apples; and I assure you I was most careful thereafter to keep my cows from eating them. But thanks to a kind and unknown friend in Vermont, who sent me a paper containing his experiments in feeding apples to milch cows, which appeared to me so satisfactory that I at once determined to make a trial of it. I told my hired man what I intended to do; he objected strongly and advised me not to do it, using the old arguments, &c. But I was determined upon making the trial, and not to be dissuaded from my purpose. Accordingly I commenced feeding my cows a peck apiece the first night and again next morning and evening; on the third day I had increased the quantity to half a bushel morning and night. By this time there was an increase of milk fully one-third. The fourth and fifth days I gave them three pecks a piece, morning and night, but there was not a corresponding increase of milk. I then gave them a bushel each. They ate them the first, second and third time, but there was a decrease; I then went back to half a bushel, and an increase of milk followed. This satisfied me that a bushel twice a day was too much, and produced injurious effects. I regret that I did not follow up the experiment, with one cow, and note the result. I fed over two hundred bushels that fall, and was very much pleased with my first experiment.

And while I was paying strict attention as to their effect upon the quantity of milk, I was not unmindful to note the quantity of the cream and butter, and found that it fully corresponded with the increased quantity of milk, and that the butter was of superior quality. The apples were about three-fourths sour and one-fourth sweet, ripe, grafted fruit; and eight years experience has fully satisfied me that apples are perfectly harmless; that they will not kill cows nor dry their milk any more than potatoes, pumpkins or grain; but when eaten to excess, have an injurious effect, dry up their milk, and I have no

doubt has often killed cows. Let them get used to them gradually, and there is no danger. It is the eating to excess that does the mischief.

Having stated to you my experience in feeding apples to cows, I will add that of feeding them to hogs. My first experiment was only a partial one, when I fatted my hogs on apples and corn. My second, was five years ago, and more to the point. I had then a large quantity of apples; the price in market was too low to pay transportation. I accordingly turned my hogs into the orchard about the 10th September to help themselves, and they had the slop of the kitchen besides. When dressed, they averaged a trifle over 300 lbs.—age seventeen months. Three years ago, having again a large quantity of apples, my hogs were served as before; when dressed, they averaged 325 lbs.—age sixteen and a half months. Wanting to keep them a couple of weeks longer after my apples were gone, (I only feed them windfalls,) I fed them corn, but they evidently fell away. The reason of this probably was, that their teeth had become tender, and the corn was too hard for them. One year ago my hogs were again fatted on apples; when dressed averaged a trifle less than 300 lbs. excepting one hog, which would not take on any fat at all.

As to the quality of the pork, it is equal to any fatted on corn, or other substances. If any one doubts it, let him come and dine with me, and he will be convinced. Many farmers in this section have got in the right way, and feed all they cannot sell, to their hogs, and it gives me great pleasure in stating, from numerous inquiries I have made, that they are highly gratified with the practice. If boiled, it improves them materially, and all who have experience in this matter, agree in opinion that a bushel of apples are worth as much for fattening hogs as a bushel of potatoes.

I do not mean, however, to be understood that I advise every farmer to feed his apples. Location, price in market facilities to it, and cost of transportation, ought to be taken into account; but rather than sell them at a very low price, and cart them a day's drive besides, or make cider of them, and sell that at a dollar a barrel, I would feed them, and in that manner convert them into cash.

Yours, very respectfully, H. D. Grove.

Buskirk's Bridge, N. Y. Dec. 1841.

VARIETIES OF INDIAN CORN.

Messrs. Editors—Wishing to make some experiments with Indian corn, (*Zea maize*) principally with a view of ascertaining the relative period of maturity in the several varieties commonly cultivated, I took some pains to collect as many kinds as could readily be done, and with the aid of my friends found myself in possession last spring of some twenty-five varieties, or at least such as passed as distinct varieties of this valuable grain. The ground on which it was planted was in tolerable condition, was plowed late in the fall of 1840, but owing to an unusual pressure of business I did not get it ready for planting until the 1st of June, nearly a fortnight later than it should have been. The ground was plowed, furrowed out, and well manured in the hill, or rather by dropping the manure, which was hog pen and yard manure, as thickly in the furrows as it was intended to plant the corn. It was intended in striking the furrows to place them at three feet distance, but they were found to be somewhat nearer, and the corn was planted in the furrows from twenty to twenty-two inches distance. I mention the distance, because it was found altogether too close planting for the larger varieties, and full distant enough for the smallest corns grown. The manure was first covered with earth, the corn dropped upon it, and then the seed covered to the average depth of two and a half or three inches. The seed was soaked in water until swelled, to facilitate sprouting, with the exception of a few rows which were planted dry. The corn came up very well, notwithstanding the extreme dryness which followed the planting, particularly that on the part of the field manured from the pig pen, and in this case, as in many former trials, this manure proved its superiority over all others, in giving the heaviest crop, and showing the earliest maturity. It may be as well to state here that, as a general rule, I do not approve of manuring corn in the hill. It is better to spread the manure over the surface and incorporate it more fully with the earth by plowing. Put in the hill, the corn gets a quicker start, but when the roots spread, they do not find the requisite nourishment, and besides it is much more liable to suffer from drouth; still it may be necessary to adopt manuring in the hill sometimes. It was hoed twice, and the growth was very rapid until the ears were setting, when the long continued dry and hot weather gave it a check from which it never recovered, as the ears were not as well filled as they would otherwise have been.

I shall give the varieties, as numbered at the planting, with the names by which they were known, or which were given by the gentlemen from whom they were received. Reference will also be made to that excellent essay on Indian Corn, by Dr. Browne, of Chester Co., Pa., one of the best descriptions of the cultivated varieties I have yet seen. His essay embraces thirty-five varieties, and a previous collection, made by the Doctor for the French Government, amounted to forty. But there are several well marked and distinct varieties now frequently met with, which Dr. Browne has not included, such as the Rice corn, Texas corn, or that grain each kernel of which is enclosed in separate envelop, Chinese Tree corn, Brown corn, Red Blaze, &c., not to mention numberless sports of nature which may be detected in a cornfield, but which rarely give any new character to the product. Among farmers there are several varieties principally cultivated for the purpose of parching or popping, as it is called, and these will be so distinguished.

No. planted.	*Name by which known.*	*Color.*	*No. in Browne's Ex.*
1.	Red or Brown Parch Corn.	Brownish red.	24.
2.	Canada Dwarf.	Yellow.	8.
3.	Squaw Corn.	Milk white.	19.
4.	Ackerly's Corn.	White.	17.
5.	Goodsell's Toronto.	Yellow.	—
6.	Red Blaze.		—
7.	Long White.	White.	—
8.	Marks' Canada Flint.	White.	16.
9.	King Philip.	Yellow.	8.
10.	White Common Parch Corn.	White.	16.
11.	Bement's White Flint.	White.	17.
12.	Long Oswego White.	White.	—
13.	China Tree Corn.	White.	—
14.	Dwarf White Parch Corn.	White.	16.
15.	Dutton Corn.	Yellow.	35.
16.	Virginia Dent Corn.	White.	12.
17.	Sugar or Sweet Corn.	White.	20.
18.	Blue Corn.	Blue.	31.
19.	Blood Red Corn.	Red.	21.
20.	Rice Corn.	Yellowish brown.	—
21.	Black Dwarf.	Black.	—
22.	Sweet Red Cob.	White.	—
23.	Canada Flint.	White.	16.
24.	Yellow Canada Flint.	Yellow.	8.
25.	Golden Sioux.	Yellow.	10.
26.	Brown Corn.	Brownish yellow.	—

In my opinion, Nos. 2, 5, 9, and 24, are essentially the same, or are the original King Philip corn found in New England at the landing of the Pilgrims, modified by climate, cultivation, &c., all being yellow, eight rowed, the same color of kernel, and the grain having the general qualities for food, ranking in this respect deservedly high. According to Dr. Browne, the Dutton corn is a cross produced by a mixture of the King Philip corn with the original Indian gourd seed yellow corn, which has twenty-four rows. So, too, the numbers 8, 10, 14, and 23 have, I think, a common origin, the color, solidity, shape, and quality of the grain indicating this. No. 3, or what is called Squaw corn, it being extensively grown by the Indians, and much esteemed, as remaining soft or fit for roasting or boiling a long time, is readily distinguished from other white corn by the color, large size of the kernel, and the time it remains in the milk, resembling the sugar corn in that respect. The white kernels that occasionally appear in ears of sweet corn, appear more like the Squaw corn than any other variety, and it may have originated from such a source. I have marked the Hæmetite or blood red variety as Browne's 21, but it differs from that in being eight rowed, although cob and kernel are similar in color to his. If not admitted to his catalogue in that place, it must be considered a new variety, as it agrees with no other of his hæmetites. The Red Cob Sugar corn, No. 22, is a hæmetite, but is not included in his list. I received No. 12, or the Long Oswego White, from Mr. Chafee of that county. It is a beautiful corn, eight rowed, and may be Browne's No. 15. It has longer ears than any variety of corn I have ever seen grown, some of them reaching fourteen inches in length. There is a peculiarity in the leaf of No. 8, sometimes indeed observed in other corns, but more common in this and those I have supposed to be the same variety, than in any others. At the distance of a few inches from the stalk, a hook appears on the margin of the leaf, as if a strip of the leaf had started off and the point curled round and outwards. Of the varieties planted, the Brown corn has the largest and finest kernel, and would unquestionably be here, as it has proved to be in New Hampshire, a very productive kind.

In the ripening, the varieties planted ranked as follows: Canada Dwarf Dwarf, White Parch corn, Marks' White Flint, Canada Flint, and common White Parch corn, Yellow Canada Flint, Red Blaze, Long White Oswego, and Brown corn; Goodsell's Toronto, Dutton, and the Red and Blue varieties. The Sugar, Rice, China, and Dent corns were the latest, and evidently could not be depended upon for a crop in ordinary seasons, or indeed not at all in our latitude. The Toronto corn is a fine looking yellow corn, but I was somewhat disappointed in its ripening, it being later than many other varieties. Last year I had some of the Dwarf White corn, No. 14, in my garden. On one stalk I observed two ears that ripened much earlier than any of the others, and these I saved for seed. The corn from these ears was as early fit for boiling, within two or three days, as the Canada Dwarf, which has usually been from ten to twelve days the earliest corn grown, thus affording another proof of the advantage of selecting the earliest ripening seeds for planting. There can be no question that most of our cultivated plants might be much hastened in the same way. The Dutton corn I used was from a lot grown by Dr. Bangs, of Amber, which produced at the rate of one hundred and twelve bushels per acre. It is a beautiful corn, but its ripening is not so certain in all seasons as the Brown, Red Blaze, or the smaller varieties, and the large cob renders it more difficult to cure in unfavorable weather. The Yellow Flint (No. 24) is a fine corn, the ears not large, but allowing close planting, and producing well; and like the white flints, ripening early, is a favorite in those places where corn is an uncertain crop. Of the comparative productiveness of the several varieties planted, my experiments this season afford no means of determining. H. M. Gaylord.

Otisco, N. Y., Nov., 1841.

Cattle should be duly supplied with salt during winter, which is often forgotten.

CULTURE OF MILLET AT THE SOUTH.

Messrs. Gaylord & Tucker—It is not an unfrequent inquiry in your paper and others, from Southern farmers, what kinds of grass will suit *them* best, or rather their climate?

Having had some experience for ten years past, I will venture to answer the question, as I have never failed to obtain a good crop of *Millet*, when the ground was *rich* and properly prepared, viz: by twice plowing, and harrowing clean. I usually sow a bushel to the acre, and cut it as the seed begins to turn yellow; cure it as any other hay, and horses or cattle prefer it to clover or timothy. It matures in about sixty days, and may be sown from April until the first of August. Red clover is rather uncertain; in *wet* seasons, does *well;* sown with oats, from October till March, one peck seed per acre; will bloom in May; have cut two tons to the acre on strong land; with it, I generally mix Herd's grass and Red Top, half peck each, but neither of them bear the heat of our long hot summers equal to the clover.

"Pacey's Perennial Rye grass," sown in October or November, without any protecting crop, yields the earliest cutting, viz: about the middle of May, and makes the most delightful hay. The only safe plan for getting *good seed*, is to import it direct.

CONKLING'S ROLLING HARROW.

I must not withhold my tribute of praise to this admirable implement, though rather expensive; freight, &c., about $120. Mine has been in use five years, and passed over one hundred and fifty acres or more each year, and is now as good as new, having, as I believe, been worth the cost every year. In addition to scarifying meadows, rolling "small grain," &c. I pass it over my *corn*, when from two to six inches high, and consider the operation better than a plowing, and will easily go over ten acres in a day; it leaves it in fine order for plowing. Some of my neighbors, seeing it, have substituted a log with spikes, which answers very well, and costs but little.

I think the smooth roller very essential to good farming, and am glad to see them getting in fashion generally. I am your obd't. serv't.,

N. B. Moore.

Augusta, Geo., Nov. 1841.

ON THE CULTURE OF POTATOES.

Messrs. Gaylord & Tucker—Located as I am, near a village on the banks of the Hudson river, I find the most profitable crops I can raise are potatoes, hay, and oats. I will give you a description of the manner in which I raised my crop of potatoes this year. After mowing a field containing three acres, I put on seventy-five loads of manure in the month of September, and plowed it under immediately after it was spread on the field. In the month of April following, I had the ground made mellow by cross-plowing, and in May planted in rows two and a half feet apart both ways. About ten days after the field was planted, when the sprouts began to break the ground, I had the field plowed with one horse, putting two furrows to the row, throwing the dirt on the rows, which covered the potatoes very deep. I then had them harrowed with a wooden tooth harrow; this threw the small stones and lumps of dirt off the potatoes into the furrows between the rows, and made the field appear like a field of newly sown wheat before it had come up. In a few days, the potatoes came up beautifully; all vegetation in the field at this time was destroyed, except the potatoes. In the latter part of June, I had them plowed and hoed once, and that was all the labor bestowed upon them. The field yielded 735 bushels.

I planted another field, containing five acres. I put on twenty-five loads of manure to the acre; it was spread on the sod in the month of April, and plowed under; the potatoes were planted in May. This field could not be tilled as the other; the sod prevented; they were plowed and hoed in the usual manner. This field yielded 910 bushels. I planted another field, containing five acres, which had been planted with corn the year before, and manured at the same rate previous to planting the corn. I had it tilled in the same manner as the three acre field, which is my practice in cases where it is practicable; this field yielded 875 bushels. I had 72 loads of potatoes; my wagon and cart hold each 35 bushels, making in all 2,520 bushels. With my own stock, I make about 100 loads of manure yearly. I buy about 200 loads in the village for 62 1-2 cents the load, pressed down and heaped on as long as any will stay, and drawn by a pair of strong horses or oxen. The northern part of Westchester county has suffered very much these two years past for the want of rain. I consider my potatoes about two-thirds of a crop. Two years ago, they averaged over 300 bushels to the acre. The plan of covering them with the plow when they are about coming up, saves me twenty or thirty dollars a year in labor, and I think my crop much better. I got it from the Cultivator, and I would give the man that wrote the article the credit of it, but I have searched the back volumes, and I cannot find it. If it had not been for the Cultivator, I probably should not have known it; so I save twenty or thirty dollars a year in this one thing, by reading your highly valuable paper.

Respectfully yours,

Tyler Fountain.

Peekskill N. Y., Nov. 12, 1841.

SHEEP—THE SOUTH DOWNS.

MESSRS. GAYLORD & TUCKER—I am enabled to answer some of the queries of your correspondent, J. N. Smith, in your November Cultivator, on South Down Sheep.

I have sold the fleeces of South Down sheep, and attended the weighing, for an uncle, who first introduced them into the West of England, from Sussex. In the year 1803, I weighed upwards of four thousand fleeces, averaging about three pounds to the fleece; one-third were from lambs. Wool was high at that time, the Spanish and Saxony market being nearly closed to the English, and the lot was sold at two shillings and nine pence per pound, or about sixty-one cents of our currency. The same kind is now selling at from eighteen to twenty cents. I brought a piece of cloth to this country, made from the fine portion of South Down wool, the fleeces being thrown into four sorts, and sold it in this market at six dollars per yard. The same quality is worth at this time, if sold at auction, two dollars and fifty cents per yard.

South Down stock sheep should be kept on mountainous land at least six months in the year. The original English stock were first bred on the South Downs of Sussex, or that ridge of chalk mountains running through that and other counties. The flock brought from Sussex by my late uncle, J. Mighell, Esq., were kept the greater part of the year on the chalk fields running from Marlboro, Wilts, to Caln, a distance of some twelve miles. The grass on these hills is scanty, short, and sweet, and they have to move about the whole time of feeding, the continued action contributiug greatly to the health of the flock.

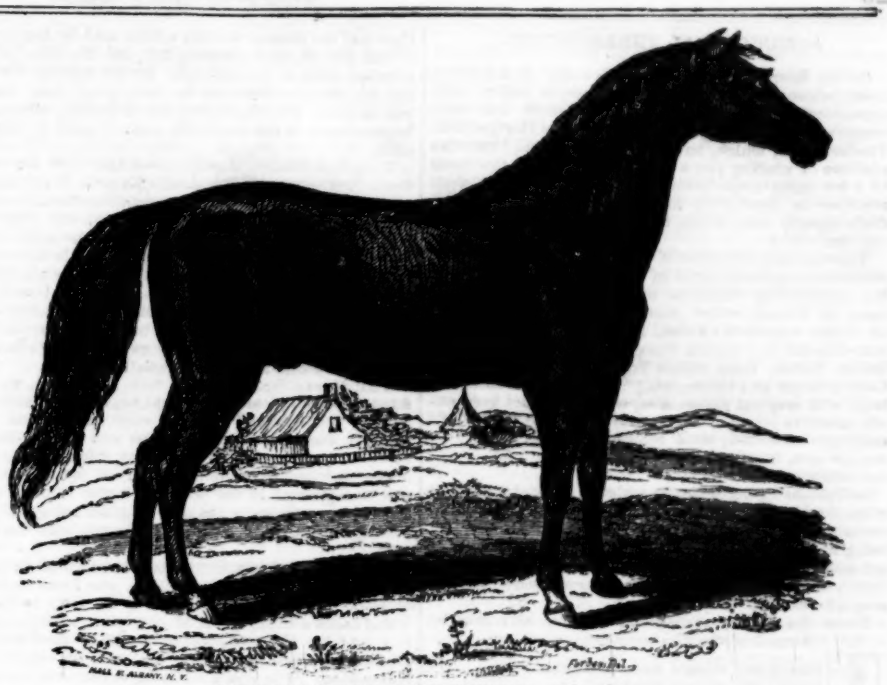
South Down Sheep are easily fed, and fatten quick on moderate feeding. The meat is considered sweeter than any other mutton, with the exception of Welsh runts.

In a visit to England, about twenty years since, I spent three days at a Mr. John Gale's, Stirt, near Devizes, Wilts, who had a flock of mixed South Downs, of, I believe, nearly three thousand; and I examined some cloth made from their wool, which was equal in quality to any cloth now sold in our market at eight dollars per yard. The handle was remarkably soft, and the face fine and silky. Mr. Gale (since dead) was, and had been for many years, a prominent member of the Bath and West of England Agricultural Society. Mr. Gale gave me the following information relative to the crossing of Merino and South Down sheep: that the first cross from the South Down furnished much finer fleeces than from any other English sheep; that the mutton was not much injured, and that the sheep were still easily kept, and were hardy. He further observed that, however fine the fleeces of a flock may be, they will gradually deteriorate, unless the owner attend to the lambs; that every increase will produce some lambs of coarser fleeces than the original stock; that unless these are separated, they will gradually degenerate; but if judiciously attended to, the quality will improve. It is a legitimate deduction, that a cross with Saxony would produce the same results, as the Saxony stock were originally Merino.

WM. PARTRIDGE, 34 Cliff-st., N. York.
Nov. 15, 1841.

THE CANADA THISTLE.

MESSRS. GAYLORD & TUCKER—I wish to make a call on every farmer and friend of the cause of agriculture in the state, to unite, one and all, in making application to the Legislature, at the present session, for a law to compel every owner or occupant of land to prevent a plat or patch of Canada thistle from going to seed on his grounds, or in the road opposite to his lands, under a penalty of $5 or $10 for each and every neglect. With such an enactment in this state, we could partly, if not wholly, arrest the spread of this very obnoxious plant by the seed. The thistle gives the farmer more trouble than all the other weeds put together. A good careful farmer may spend a good deal of time and money to eradicate the thistle from his plantation, by keeping up a continual warfare, till he has finally exterminated the last one; but in vain will a careful farmer regularly cut down the thistles on his own land, if his neighbor is permitted to suffer beds of them to flourish and go to seed on his adjoining grounds. Therefore, I think an act should be passed at once, and there is no doubt but every good farmer will second the suggestion, and enter into it with all his energies, for all know the farmer has not a more powerful enemy to contend with. At the last session of the Legislature, they did render some aid to the farmers of the state, by the appropriation of $8,000 a year, for five years, to promote the interest of agriculture; and all have seen the benefit of the law already, by the splendid State Cattle Show and Fair, and the various cattle shows and fairs held in the different counties of the state the past fall, which have gone off with great credit to the farmers, and with the approbation of all. The present Legislature should do a little more, and help the farmer to get rid of the very worst pest he has, by passing some law to effect the destruction of the Canada thistle. Let this important subject be at all times before the farmers, till they obtain such aid from the Legislature as is needed. Every county society in the state, as well as individuals, should send memorials to the Legislature, at its present session, for the accomplishment of this object; and no exertions should be spared, until we have something done for the destruction of the Canada thistle. J. B. D.



PREMIUM HORSE "MESSENGER"—[Fig. 6.]

The above is a portrait of Mr. Cooper's "Messenger," to which was awarded the first prize of the N. Y. State Agricultural Society at their Fair, at Syracuse in 1841. He also received the first premium of the American Institute, in October last.

SALMAGUNDI—No. III.

MESSSRS. GAYLORD & TUCKER—Permit me, gentlemen, to tender to you, with heartfelt sincerity, the usual

NEW-YEAR CONGRATULATIONS.

May your lives long be spared, and each succeeding year bring with it renewed health, and increase of knowledge to sustain you in that vocation which has thus far been crowned with such signal honor to yourselves, and usefulness to the cause of agriculture. I have been a vigilant observer of your editorial labors, not accompanied however, with a fastidious, nor fault-finding spirit, but with an earnest desire that the *seed* sown by your hands should be free from *tares;* and without arrogating to myself the ability in all instances to decide, yet in my humble judgment, I can truly say that your course has been free from error, and the result has been a bountiful *harvest* of correct knowledge to your readers. The editorial columns of the Cultivator have been distinguished by a justly balanced scale of science and art, of *theory* and *practice;* the former, teaching us a knowledge of first principles—the laws which govern and influence vegetable nature—and the latter, a minute knowledge of that unerring system of practice which deviates least from these laws, and which the more nearly approximated, the more certain to be crowned with success. In short, I shall take the liberty to say, in behalf of twenty-five thousand readers of the Cultivator, that its editorial matter is all that its friends could desire. Go on, then, gentlemen, with increased zeal in your honorable and useful path; and may not only the incense of grateful hearts cheer you in your progress, but *solid* advantages to yourselves, be the reward of your arduous labors.

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DICTIONARY OF TERMS USED IN AGRICULTURE.

Not even a passing tribute of praise has been awarded, by any of your correspondents, to Mr. GAYLORD, the author of that admirable digest of theoretical and practical knowledge, published from time to time, under the above caption. Few of us are aware of the amount of information, and continual research, required to fulfill the task he has undertaken; the useful result of which, to every farmer, cannot be too highly appreciated. I have been more strongly impressed with the value of the dictionary, on reviewing it recently; and permit me to recommend a continuation until the lowest letter of the alphabet is reached. Should then, this beautiful epitome of agricultural knowledge be revised and enlarged, if found necessary, and published in a separate volume, it would command an extensive sale, for few books could be found to surpass it in utility to the agriculturist. The Dictionary of Terms, alone, is worth the price of subscription to the Cultivator.

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"COMMENTATOR."

The path chosen by your talented correspondent, who attaches the above signature to his valuable papers, (it would be more gratifying to all, however, if he would give us his real name and whereabouts)—meets with my hearty approbation. I speak for myself, and not for others; although let this not be considered as a qualifying remark, for his criticisms and comments evince sound judgment, much and varied theoretical and practical knowledge, and therefore must be equally approved by others. The course he has adopted of correcting errors, of whatever character, which appear in the Cultivator, is precisely what I intended long since to have suggested to you, as your duty, Messrs. Editors; but reflecting on your already arduous labors, as well as on the delicacy of the duty, prevented. That errors of doctrine and practice, exaggerated statements, visionary and ill-tested experiments, will ocasionally make their appearance in all our agricultural periodicals, is very certain; and hence, whenever these occur, immediate correction should follow in the form of notes appended by yourselves. Then would truth go forth to shame falsehood, and orthodoxy arrayed against heresy. The neglect of this often occasions those who are still prejudiced against "book-farming," to carp at agricultural papers; for the great mass of farmers are too shrewd and knowing not to detect many fallacies for themselves. I have not unfrequently been asked by farmers, and some of them my immediate neighbors, if I believed such and such a statement, or, if such a man's experiment was worthy of being published, much less followed; and I have generally been forced to admit their exceptions, and put the statement down as a "Gulliver," and the experiment as devised by a visionary. I do not charge that these things often occur in the Cultivator; no, on the contrary, but seldom. But I would not have a line that would tarnish its columns, nor a foul weed to nurture there. Thanks to "Commentator," for, if we may judge from the specimens of *pure seed* he has presented, his *mill* is a powerful one, and *screens* well. Let Brobdingnags, speculating humbuggers, and visionary experimenters, take heed and not get themselves into his *hopper;* a *blowing* will be the certain consequence.

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"DID'NT I DRUM WELL?"

Many of your readers, doubtless, have read the anecdote of the justly celebrated merchant of Boston, Billy Gray, as he was familiarly called; but lest all your readers may not have seen it, I will take the liberty to give the substance here. When Mr. Gray was somewhat advanced in years, he was one day superintending a piece of carpenter work—for nothing about him was permitted to escape his vigilant eye; he had occasion to reprimand the man who was performing it, for not doing his work *well*. The carpenter turned upon him; he and "Billy" being known to each other in their youth—and said, "Billy Gray, what do you presume to scold me for? you are a rich man, 'tis true, but did'nt I know you when you were nothing but a drummer?" "Well, sir, did'nt I drum *well*, eh, did'nt I drum *well?*" The carpenter was silenced, and went on to do his work *better*, agreeably to Billy's orders. Billy Gray commenced his career a poor boy, and began early and continued through his long life to act on the principle of always drumming well, or otherwise, of doing every thing as it ought to be done, and not by halves; and the result was, that he died worth his millions of dollars. A number of years since, I heard from his *nephew*, who received his mercantile education in his uncle's counting house, several anecdotes connected with his habits of early rising, untiring industry, personal supervision of his immense business, and the clock-*work* manner in which everything about him had to move—indeed, always "*drumming well.*" This is a text *from* which much, very much, might be deduced to the advantage of every farmer. Let us, one and all, endeavor through the year 1842, to drum better than we have ever drummed before; and an increased reward to our labors will be the sure result. L. A. MORRELL.
Lansing, Tompkins co. N. Y. Dec. 10, 1841.

AGRICULTURE is the most ancient, the most honorable and the most useful of Arts.

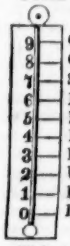
AGRICULTURAL THERMOMETER.

On the morning of the last anniversary of American Independence, wishing always to mingle utility with amusement, I commenced, what I had some time contemplated, constructing an Agricultural and Horticultural Thermometer, which, having now completed, I have the pleasure of sending you a drawing of it, with the result of a few hasty experiments; and as leisure offers shall continue its application to many other characters, no doubt equally meritorious, by way of testing its correctness and utility.

The instrument consists of a cylindrical tube of glass, containing eighteen drops of a liquid, known only to a few persevering amateurs of chemical science by the name of *Florum nectar Americanorum*. The liquid is an animo-vegetable extract, and is very expensive. It was obtained by a skillful French chemist, assisted by an Indian doctor, from native flowers and Chica,* near Lake George† and Lexington,‡ and mingled at Xochicaleo,§ with magical ceremonies, with an extract from exotic sensitive plants of several varieties. Its odor is exceedingly powerful; until sealed up in the glass, like oxygen gas, its stimulus, though very delightful, is insupportably powerful.

The tube, being hermetically sealed to prevent the escape of the liquid, which is of amazing volatility, is fastened and enclosed in a case of finely polished ivory, wood or bone, it being found that metals, particularly gold and silver, will not answer on account of their strong attraction for the liquid, affecting it in the same manner as steel affects the magnetic needle.

From the following diagram, a better idea may be formed of the Thermometer:



9 Genius and science made practical.
8 Genius and science combined.
7 Scientific agriculture with horticulture.
6 Emulation awakened.
5 Profitable experiment.
4 Book farming commenced.
3 Industry with a desire to improve.
2 Unprofitable industry.
1 Industry with conceited ignorance.
0 Ignorance and sloth.

This wonderful liquid, which the thermometer contains, appears almost to say, "I am the spirit that dwells in the flowers." It possesses such extreme sensibility, that, when strongly excited, it becomes slightly luminous, and in some extraordinary cases, emits brilliant sparks. I had thoughts of taking out a patent, but as I am not actuated by selfish views, if it can be of any practical use to my brother farmers, or afford them any gratification by its singular developments, they have my entire approbation to the enjoyment of such benefits; and all editors friendly to agriculture, (and what editor, having due regard for good eating and drinking, is not?) it is hoped will be prompt in directing the attention of the public generally to the Agricultural Thermometer.

The subjoined are some of the experiments:

Jesse Buel.—In bringing the thermometer in contact with his paper, "*Improvement of Farm Implements*," the critique or liquid contained in the tube, appeared unsettled for a moment, inclining to rest at 4, but soon got under way, making a distinct pause at each point of criticism 5, 6 and 7, and passed them to 9 in the most prompt and graceful manner. This will be accounted for by those acquainted with his life. He was a printer, and conducted several papers with great skill, and by judicious management raised himself from very moderate circumstances to a degree of wealth. He then turned his attention to the pursuit of Agriculture, and as a mere book farmer he was eminently successful in converting the sandy barren plains, west of Albany, into rich fields, covered with an abundance of nature's choicest gifts. He then, at the earnest persuasion of a friend, was induced to commence and establish the Cultivator, which, however we may hold those who govern, and those who kill mankind as superior in rank to those who feed them, certainly ranks *him* as one of the greatest benefactors of the human race.

Let those who exult in their own folly, and sneer at *book farming*, bring forward, if they can, any thing in the boasted results of their old hereditary system, to compare in profit, usefulness, or beauty, with the doings and results in agriculture in general of a Buel, a Colman, a Thomas, a Lowell, and an extensive catalogue of others, who from other pursuits, and beginning perhaps with scarcely a knowledge of the names of farming implements, have caused profits to be reaped which our grandfathers never knew; and by book farming have exalted the character of Agriculture from a low groveling pursuit, to its proper rank, the first and noblest employment. But to return to the improvement of farm implements.

The Plow.—In this implement the advance in thirty years has been truly astonishing. There is scarcely less difference between the neat cast iron plow of the present time and the clumsy wooden article used for the purpose at that period, than between that and the iron pointed crotched stick of the ancients. In the ease of working and the effect produced on the soil, every man competent to judge will admit that the difference effected by improvement in the last thirty years is equal to fifty per cent.

The Thrashing Machine.—Experience shows that the farmer who gets out and sells his grain in autumn, admitting the prices are the same, realizes from his crop at least ten per cent more than he who does not dispose of his crop till the next spring. But it may be safely asserted that in grain growing districts, the whole force of the farm, if devoted to that object alone, would not be able to bring his grain into market in the fall if thrashed by hand. Hence the thrashing machine has come to his aid, and does the work so much better and quicker than it can be done by hand, that the getting out of a thousand bushels of wheat is counted a small affair.

The Horse Rake.—With this instrument, on land fitted as meadows always should be, one man and horse will do the work of six men with hand rakes. The value of this labor-saving machine will not be disputed by those who have tested its power, when time presses or storms lower over the hay-field. It is not less valuable as a gleaner in the wheat or barley stubble, where no care can prevent a quantity of grain being left, surprising to one who has never gleaned with the horse rake.

When testing Jesse Buel's article on the *Economy and Application of Manures*, the critique was found stationary at 9—on bringing his *Advantages of Draining* to the test, 5 was found a strong point of attraction, with short trips to 7 and 8. His *Comparative Profits of Good and Bad Husbandry*, when brought to the critique, caused great commotion. The liquid inclining to rest at 0, but after a momentary pause jumped like the dancing master's pupil, to his 1, 2 and 3—4, 5 and 6; but finally rose to 9, and appeared luminous with brilliant sparks. The same was observed on turning to his papers on the *Agricultural School*, and also his *Seven Reasons why Agriculture should receive the patronage of Government*, with nearly similar results.

Henry Colman.—When his truly valuable *State Reports* on the Agriculture of Massachusetts, were offered for the test, the critique was much disturbed, yet played in great dignity with 7, 8 and 9, and occasional trips to 4, 5 and 6, and appearing slightly luminous, emitting at the same time small but very brilliant scintillations round 0, 1, 2 and 3. On turning over some volumes of Mr. Colman's Addresses, found the liquid playing harmonious oscillations from 5 to 9, and 9 to 5, like the movements of a well regulated timepiece. I was much pleased with the effect, as it seemed to indicate his equal claim to those points, and I also consider it conclusive proof of the instrument's correctness. Still willing, however, to remove all possibility of doubt as to the correctness of my instrument, I turned it to several of his valuable essays with similar results in each case.

The public are much indebted to him for his long continued exertions to improve all the departments of our husbandry.

Weight of Cattle.—The records of the Smithfield market in London, prove that within one hundred years, the average weight of the cattle killed for that market, has nearly doubled, rising from between four and five hundred to between seven and eight hundred, and the greater part of this increase has been in the last forty years. It is calculated that the cattle offered at the Brighton market, near Boston, average at least fifty per cent more at the present time than they did twenty years since. This improvement we owe to the knowledge brought to bear on the breeding of cattle and agriculture generally.

Willis Gaylord.—His voluminous papers on *Chemical Manures, Butter, Cheese, Agricultural Associations*, the *Increase of the Corn Crop*, &c. being severally brought to the test, caused rapid movements with the critique, which was noted roving from 4 to 8, but rose to 9 in a chaste and luminous manner, with brilliant sparks at the top of the instrument.

Manures.—The preparation and application of the most active and efficient means, with which the farmer is acquainted, of increasing the productiveness of his grounds, are the effect of chemistry applied to agriculture. There are few who cannot remember when bone dust, lime, sea-marls, urate, poudrette, &c., were things never heard of; when the accumulation of bones about our cities and soap factories was a nuisance, and the only question respecting other substances now so valuable, was, as to the easiest manner in which they could be disposed of; when the leisure of winter and the season of ice were embraced to transport them where the returning spring would convey them to the ocean or elsewhere. How astonishing is this state of things, compared with the fact now ascertained, that the value of animal manures annually collected and applied to the crops in England, at current prices, surpasses the whole amount of its foreign commerce;* and that animal manure has been and can be profitably imported into England from so great a distance as the eastern part of the Pacific Ocean.

Agricultural Associations.—The splendid agricultural improvements, now here and there exhibited, are the results of Agricultural Journals and Agricultural Associations, where enterprising individuals meet periodically, and by interchanging all their ideas, increase the general stock in at least the compound ratio of their numbers; each one returns home with the knowledge possessed by the whole, and with a commensurate stock of new suggestions for future reflection and experiments. The spontaneous operations of the human mind, in an unassisted state, require ages to arrive at results which the united efforts of numerous individuals, excited by emulation, would produce in, perhaps, a few days. Most other employments lead to association, while the farmer remains in an isolated state, scarcely regarding the operations of his neighbor.

Agricultural Associations of this and other states have already effected wonders, and these wonders are now becoming the joint stock of the Agricultural Society of this state, which has been got up by the unremitted and persevering exertions of a few gentlemen, who have thereby conferred lasting benefits upon their countrymen.

Indian Corn.—The benefits of skillful cultivation, are shown in the improvement of the corn crop, as much perhaps as in any other way. A crop of seventy-five bushels per acre is now as common as fifty was twenty years since; and there can be little doubt that one hundred bushels per acre are now oftener reached than was seventy at that time.

David Thomas.—When his numerous articles on *Fruits* were brought to the test, the liquid stood at 8, but soon rose to 9, fully luminous. When his scientific and practical *Floral articles* were tested, it stood at 7 and 9, the strong points of attraction, accompanied by a host of brilliant sparks.

Fruits.—Compare the quantity and quality of the fruits and vegetables now offered in our markets with those exhibited thirty years since, and the improvement is astonishing. From the growth of the cucumber to the production of the most delicious of our fruits, the influence of science is felt, and the encouragement for further effort, and the certainty of an ample reward, is every where visible.

Flowers:—

"Who does not love the flowers, the sweet young flowers,
With their bright radiant eyes, and gentle smiles,
And tones of love for all who step aside
From the dim path of life, to talk with them
Awhile, and gather lessons from their pure
And ever opening leaves?—Oh, it would seem
That God had placed them here, and given to each
Its own meek, simple loveliness, that man,
Proud man, may stoop from his high throne at times,
And humbly own the gentle flowers his teachers
In the great school-room of this busy world."

Henry S. Randall.—On bringing his paper, *Agriculture compared with the Professions*, to the test, 9 was noticed to be the luminous strong point. Found his articles on *Cattle, Sheep*, and *Horses*, at the same point, with brilliant sparks.

Breeding Stock.—The progress of improvement in breeding has been so great, that the best breeders have no longer occasion to use the old proverb, "A good cow may have a bad calf;" on the contrary they can say with confidence, their good cows never have bad calves. A skillful observance of the laws of nature has wrought this change. Formerly there may have been as good animals as we have now, but then it was accidental, and there was no certainty the progeny would resemble the parent; now the breeder makes the good qualities constitutional, and is thus certain of the character of his animals.

De Witt Clinton's *Addresses*, while governor of New-York, were brought for review, and those portions of them relating to promoting agricultural knowledge, coming in contact with the thermometer, the critique rose majestically to 9, where it appeared stationary, continuing luminous for some time, emitting bright scintillations. This result greatly enhanced their value. It brought a tear of gratitude to the memory of that truly great statesman, whose genius laid the foundation of our national greatness, and inspired his country with unconquerable ardor in the achievement of internal improvement.

The Transactions of the Essex Agricultural Society were passed in review, and gave decided evidence of high bearing; 5 was noted a point of strong attraction. On turning over the many yearly proceedings, found the liquid roving to 6, 7, 8 and 9, all movements indicating "Theory to be the parent of practical knowledge."

James M. Garnett.—On presenting several of his interesting communications, the liquid inclined strongly to 6, but on applying his *Maxims and Precepts for Young Farmers*, it rose suddenly to 9, with brilliant sparks, somewhat luminous, with bright scintillations. These maxims, compared with the ephemeral matter which furnishes most of our reading rooms and fire sides, are like Shakspeare's two grains of wheat to the bushel of chaff.

Solon Robinson's papers claiming for *Agriculture the Patronage of Government*, being brought in contact with the liquid, it passed to the top of the tube, with force nearly sufficient to demolish the instrument; my hand, which held it, receiving a shock as if from electricity. After some commotion it settled at 9.

The American Institute.—On collecting together the doings and addresses of the Fourteenth Annual Fair of this Institute, and placing the instrument in contact with the collection, the liquid sunk to 3, but immediately commenced rising by small distinct advances till it settled at 9, emitting a steadily increasing light, continuing to increase in brightness till it became dazzling, beginning to emit sparks, when feeling alarmed for the safety of the instrument, I removed it away.

Daniel Chandler's experiments on the *Cultivation of Indian Corn*, caused the liquid, when brought in contact, to settle at 5.

* "Chica, an intoxicating beverage prepared by the ancient Indians."—*A. W. Bradford's American Antiquities, p.* 135.

† "Near Lake George, in the state of New-York, formerly stood a large mound; and in its vicinity were fields appearing to have been anciently cultivated, and also oak, palm and orange groves."—*Ib. p.* 38.

‡ "Near Lexington in Kentucky, an irregular structure, 1,400 yards in circumference, with pits and ramparts, the whole of which was overgrown with forest trees of large size, and of the growth and kinds unusual in the vicinity."

§ "Xochicaleo, or the *House of the Flowers*, is situated upon the elevated plains of Cuernavaca, at a neight of nearly six thousand feet above the level of the sea."—*Latrobe's Rambles in Mexico.*

* McQueen's British Statistics, p. 81.

EPHRAIM PARKER'S paper on the *Dairy Farming of Herkimer County*, was applied to the test, and the liquid found stationary between 5 and 6. The same result was found on testing the *Cutting of Corn Stalks* by WM. CLARK, Jr. The value of such detailed experiments entitle the contributors to the appellation of public benefactors.

C. N. BEMENT'S communications on *Improved Pigs*, being brought to the test, the liquid rose to 5, with flights to 6.

IMPROVED PIGS.—Here is an improvement which no one, however slightly acquainted with the animal, can deny. The dullest eye can distinguish between the round fat, beautiful Berkshire, and the thin, lean, long-nosed and long-legged hound-like creature, which seems more fitted for the chase than for the sty. The farmer feels the difference in his corn-crib, and more than all in his pocket. The difference in the cost of feeding and in the pork made, between the improved varieties and those generally fed twenty-five years since, is not less than forty per cent. This is the result of skillful selection and crosses.

WILLIAM DARLINGTON'S *Use of Lime*, was brought to the test, and the liquid was found at 5, but rose to 9. On bringing his *Agricultural Botany* for examination, 9 was found the point of attraction, the liquid bubbling and throwing off luminous brilliant scintillations.

H. A. S. DEARBORN.—On applying the thermometer to the writings of H. A. S. Dearborn, in connection with Messrs. WILDER, WALKER, MANNING, POND, WARREN, PERKINS, CUSHING, and other illustrious pioneers of Massachusetts Horticulture, the liquid was much excited and luminous, with many brilliant sparks, circling round 7; on turning over his various papers, found so much good sense and strength of reasoning, joined to a pure and masterly style, it rose with velocity to 9.

The name of WASHINGTON is entitled to deathlike veneration, because he made our country free. Who can dispute his claim to an equal perpetuity of gratitude, who has made that country beautiful and delightful? When the creation was finished, "GOD planted a garden in Eden," from which our first parents were driven for disobedience, and instructed to till the ground for themselves. But Infinite Wisdom invested their descendants with reason, by which virtuous industry could restore the temporal primeval blessing, by the Godlike act of planting another garden, replete with fruits as numerous and delicious, and flowers as beautiful and as fragrant, as those of blissful Eden. The man who has not only done this for himself, but who by his talents has exerted a praiseworthy emulation in others to do the same, not only in his own city and state, but throughout his country, is H. A. S. Dearborn.

DOWNING'S *Landscape Gardening and Rural Architecture*, was brought to the test; the critique appeared stationary at 7, but soon got in motion, touching gracefully at 7 and 8, and settling at 9, with luminous brilliant sparks.

FARM HOUSES, GARDENS, &c.—A more correct taste in the construction of farm houses and out buildings, and particularly in the department of gardens and yards, is now plainly to be seen; for though much cannot be expected of the farmer on these points, the smallest attention to them is proof that information and a spirit of improvement have reached him, and that he begins to think. A. OF THE NORTH.

STABLING HORSES.

WE make the following extract from a letter written by L. DURAND of Derby, (Ct.) The first part of the communication, as it relates to a controversy carried on in the New-England agricultural journals, we omit.

"A few evenings since we were in conversation with an old veteran farmer and gardener of this place, to whom in a former article we have alluded, Leman Stone, Esq. He says there is nothing so injurious to horses' hoofs, as the urine and dung for the animal to stand in. And he told me the way he had practiced for several years. It was to rub the hoofs of his horses with liver oil, such as tanners use in preparing leather, once or twice a week; and this serves to keep them flexible and moist. Since he adopted this course he has never known his horses to suffer from the disease called "Hoof Bound," a disease known by the swelling of the top of the hoof, causing matter to gather under the hoof, and producing lameness. Mr. Stone prefers plank, to earth floors, for the horse; and thinks they will stand with as much ease on a chestnut plank floor, as on one of earth. Mr. Stone's stables are as nearly perfect, as any we ever saw, particularly for saving manure, and are on the same plan we noticed in the Cultivator. The floor is made tight with a descent of 2 or 3 inches, with a trough at the bottom of the floor, and everything the animal drops is saved. The straw for littering is cut to about an inch in length, and every morning the dung is hoed down into the trough, and together with the horse manure is mixed up with the urine, and thus nothing is lost. Mr. Stone keeps but one horse and two cows, and the cows are stabled every night, summer and winter, and I venture to say that he makes more manure than some careless farmers do, with three times that number of animals. We are aware that every one will have a way of his own; but all must agree in one thing, and that is to have their stables made so as to save all the manure, and be comfortable for their animals. A neighbor of mine has been building a barn with a basement story the past season. Instead of laying a floor for the stables in this part, he has covered them with a layer of tanbark, as an experiment. It will make a soft bed for his cattle to stand on, and in the spring it can be thrown out, and will make good manure."

NEW USE OF OIL CAKE.

MR. CULTIVATOR—Taking up your September No., I cast my eye upon Mr. Johnson's "Remedy for the Turnep Fly," which reminded me of experiments made by a neighbor and myself, which proved successful. He had heard the oil cake meal recommended as a good manure for turneps, beets, &c., and procured some of it, and sprinkled it upon *some* of his—not on *all*, at first, as he wished to see more clearly the effect of it, by leaving some without. That season, the flies and bugs which prey upon our garden vegetables were very numerous; but they left all those upon which he had scattered the meal, while *all* the rest were destroyed. He planted more, to repeat the experiment, powdering alternate rows, to make the result more conspicuous, with the same success. Hearing of this, I thought that perhaps it would prove equally obnoxious to other insects, and resolved to try it. My barn, hen house, and cow yard, were infested with fleas to an extent that I never knew before. I procured several bushels of oil cake meal, and dusted the sides and floor of my barn, hen house, and pig stye, and scattered it plentifully all over the cow yard. The enemy entirely disappeared, and I have not seen a single one of all the host on the premises since, although the last summer is the second since they were routed.

Hearing the meal highly extolled, also, as feed for cattle, I have tried it, much to my satisfaction, on my cows, and a little on my hogs, though I cannot say much yet as to its effect upon them. For cows, I am convinced it is so good that I shall continue to use it, as I find it causes them to give not only more, but better milk than other feed, having made more butter since I have used it than before, in the same length of time.

RUSTICUS, JUNIOR.

SALE OF SHEEP.

MESSRS. EDITORS—Having frequent applications for South Down and Cotswold sheep, and being called upon to answer many inquiries in respect to them, will you allow me through the columns of the Cultivator to say, I have disposed of my entire flock to Mr. J. McD. McIntyre of this city, who, in addition, has several of the Cotswolds imported by Messrs. Corning & Sotham in 1840, making altogether as select and perfect a flock, perhaps, as can be found in the country, and as it is his intention to stock his farm alone with these invaluable sheep, and to give his attention to them, I am very happy in being able to refer my correspondents on this subject to a gentlemen so eminently worthy their confidence and esteem, and to assure them that the exchange will in no way militate against their interest or conveniene. But lest it should be supposed that in giving up sheep, I am giving up breeding altogether, pardon me for saying, it is rather that I may give my more undivided attention, and the product of the farm entirely, to the increasing numbers of my high-bred cattle, that I have been induced to dispose of my sheep. Truly yours,

Albany, Dec. 20, 1841. E. P. PRENTICE.

TREATMENT OF CALVES

EDITORS OF CULTIVATOR—Will you, or will you permit me, to solicit from some dairy-man, an article upon the subject of calves, for insertion in the Cultivator, stating particularly the treatment of the calf from birth till disposed of to the butcher, or in the market, or reared for weaning? Also, the treatment of the cow in the meantime. I do not recollect of seeing any communication upon the subject in your paper; and I doubt not an article at length upon the matter would be well received by your readers; at all events it would be by myself. Let the article be published in season, so that your readers may have the benefit of it the coming spring.

Canaan, N. Y. Nov. 27, 1841. D. B. C.

ELEVATION OF AGRICULTURE.

MESSRS. EDITORS—Being one of the old-school farmers, I am pleased to see the change that has taken place in public sentiment, within a few years, in regard to farmers and their useful occupation. We old-fashioned *fellows*, that were once considered in the light of hewers of wood and drawers of water, find ourselves all at once standing in the front rank, and making constant, accessions to our already numerous forces, not only from the learned professions, but merchants and retired gentlemen are all eager to share in the honor and the profits of the farmer. We salute them all as brethren, and congratulate them on the prospect of the substantial happiness that awaits them. Many of them bring to our ranks a great amount of science and intelligence, of which we are happy to avail ourselves; but we trust they will not let their fondness for the quill, or for theory, make them forget, that a large proportion of the farmers of the country are more or less in debt, and under the necessity of realizing an immediate and fair reward for their labor; and that every thing that is written upon the subject that is impracticable, and out of the reach of the moderate and debtor class of farmers, has a tendency to awaken anew their prejudices against what they consider *book-farming*. Hence the propriety of pursuing such a course, as will be likely to meet the views, and enlighten the minds of this numerous and meritorious class of men; for if improvement that will be lasting is desired, you must enlist in the cause the hard-handed *Frock and Trowsers* go-ahead men, that drive their own teams, are out first in the morning and last at night, and generally wear a few nails in the heels of their boots.

FROCK AND TROWSERS.

We thank F. and T. for his suggestions; and hope he will not "stand back," but furnish us at once his modes of making stone wall, seeding down land to grass, and reclaiming swamp lands. These are important *practical* matters, and we hope our correspondent will remember and practice his own rules, and instruct the thousands who read the Cultivator in the subjects alluded to.

BERKSHIRE PIGS.

MESSRS. GAYLORD & TUCKER—I have slaghtered my hogs (only four in number,) and as many think Berkshires are small hogs, I will give you the age, weight and manner of keeping them.

1. Dolly, 3 years last spring,	15-16	Berkshire,	473 lbs.
2. Spot, 2 " "	1-2	"	467
3. Pet, 1 year last spring,	31-32	"	473
4. Pedro, 1 " "	31-32	"	494
			1838

The two first had been kept for breeders, but had not bred this season; the two last were out of the first, by the boar which I purchased of Mr. Bement.

These hogs ran in a clover pasture until harvest—then in stubble until the grain was consumed—and then in the orchard until the 11th day of October, when they were confined in the pen and fed with barley meal wet with water, and a little salt, and slightly fermented. While they were in the orchard they were fed with a small quantity of corn in the ear daily, not however, equal to one bushel of corn each, in the whole. They were killed on the 10th of December.

Many farmers are prejudiced against Berkshires. The reasons of which I think are, first, they are a thick smooth looking pig, and are therefore *called* fat, when they have not had the feed which is necessary; and second, most farmers have bred their Berkshires *down* instead of breeding up. They have bred grade animals together, rather than incur the expense of obtaining full blood; and this course I am persuaded will cause any of the improved breeds of animals to deteriorate.

I will soon furnish you with the report of the Viewing Committee on Farms for this county. E. MARKS.

BAKEWELL POTATOES.

MESSRS. EDITORS— I beg leave to offer a few words in relation to my favorite potato, a small sample of which I left at your office the other day. For the use of the table I consider them every way equal, if not superior to the Pink-eyes; their properties in this respect you will please put to the test. I can say nothing regarding their history, further than a two years acquaintance, during which time I have cultivated them, and find that with proper tillage they produce better than the Rohans or any other kind that I am acquainted with. They should be planted early in the season, and like all other varieties, require a rich soil. For the sake of a name, and in view of their superior properties for baking, roasting, &c. I will venture to call them the *Bakewell*.

Marcellus, Nov. 22, 1841. CURTIS MOSES.

PLOWING AT SYRACUSE.

WE copy the following from the letter of a "Friend to Agriculture," at La Fayette, Onondaga county, and think his suggestions worthy of consideration.

"As a farmer of the county of Onondaga, I attended the Fair at Syracuse, and had an opportunity of seeing the plowing match; and much regretted the rules (or one of them) adopted for the government of that interesting part of such exhibitions. This was the time allowed for the work, which I think was too short for good work. I noticed one plow that broke its point, and to get done in the time the horses were put almost on the trot, which rendered the holder incapable of doing the work well. Giving so limited a time, induces the plowman to take the wide furrows, which you are aware does not pulverize the soil, nor when putting in seed divide it sufficiently. Work that is worth doing at all, is worth doing well. When we see a piece of work of any kind well done, it is very natural to inquire who did it; but very seldom how long it took in doing.

I would also suggest that at future Fairs, every plowman set out his own land; the lands to plow being set out by stakes only, and not with a plow before hand, as as was the case at Syracuse; and also that he alone should drive and hold, which is evidently a saving of labor, an essential element of good husbandry."

LARGE SUGAR BEET.

MESSRS. EDITORS—I have this year raised a French Sugar Beet that weighed, with the top on, 24 pounds; after being trimmed closely, it weighed 19 pounds and 1 ounce, and measured 31 inches in circumference. I have it now to exhibit, if disputed. If you are so disposed, you may give Vermont credit for this, to begin with, and we may hereafter tell you some large squash stories. LEVI LEWIS.

Wells, Vt., Dec. 13, 1841.

The Garden and the Orchard.

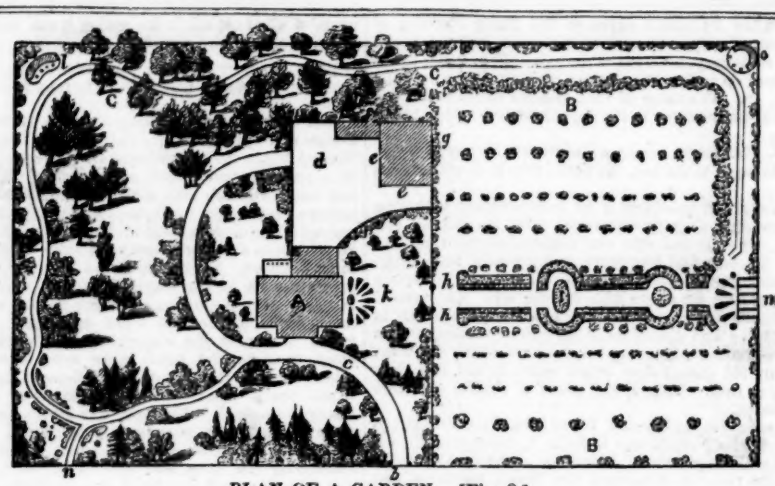
THE GARDEN.

THE first impression which the annexed plan of a garden and grounds (fig 8.) will make on many readers, is, that it would be altogether *too costly;* that it may do very well for gentlemen of independent fortune, but is entirely out of the question for common farmers. Now, I hope to show, instead of this being the case, that it would be, on the whole, more economical, and better adapted to farmers in moderate circumstances, than any thing of the kind in common use in this country. But an explanation of the plan will first be necessary.

It will be perceived, at a glance, that the old, stiff, and formal geometric style has been, as far as practicable, avoided; and the modern or graceful manner employed, which consists in an imitation of the most beautiful forms of natural scenery. Those who do not greatly prefer the latter, will not, of course, be pleased with the irregular planting and grouping of *fruit trees*, to produce a natural effect; but space admits of nothing further on this question here, except to refer to a full and very interesting discussion of the matter, in Downing's late admirable work on Landscape Gardening, which every man who has any taste for the beauties of nature, or who owns an acre of land, should read. The plan before us is supposed to represent about two acres of ground, but will apply, with slight variations, to a greater or less quantity, or to a different shape. *A* is the house, *b* the entrance from the road, *c* the carriage road which passes in front of the house, back to the yard, *d*, which contains the carriage house, stable, and such other out buildings as are needed near the house. *B B* is the garden, the length and breadth of which may vary with the quantity, nature, and shape of the ground. The space, *C C* is occupied chiefly with fruit trees, such as are of fine kinds and handsome growth, and arranged so as to produce an ornamental effect. The yard and out buildings, at *d*, are placed entirely within the boundary, to give greater length to the walk which passes round the whole, and thus increase the apparent extent of the grounds. These buildings may be hid entirely by trees, or partially by ornamental climbing plants, as the trumpet flower or Michigan rose, on the side *e*, next the lawn, and with hardy grapes, or fruit trees trained upon them, on the sides *f* and *g*.

The *kitchen garden*, to which attention is especially called, occupies all the space between *B B*, except two borders for flowers, *h h*, and is laid out on a plan entirely different from usual. Instead of being divided into squares and spaded beds, long parallel drills across the whole are employed for nearly all garden crops. On good ground, free from stones, a one horse plow, or narrow cultivator, will pass between rows from two to three feet distant without difficulty; and if too much ground is thus occupied, double or even triple drills may be planted. By thus allowing free space, and frequently stirring the soil superficially with the cultivator, and occasionally deeper for many crops with a plow, vegetables far better than common can be raised. Asparagus, for instance, when planted in dug beds, as is usually done, is much diminished in size and vigor, from the want of space for the free spreading of the roots, as well as from the difficulty of frequent and thorough culture. Planted in drills, in deep rich soil, the difficulties are removed, and each individual plant soon forms a stool one foot or eighteen inches in diameter, throwing up shoots of great magnitude. Strawberries, too, when kept well cultivated in drills, produce much finer fruit than otherwise. Keene, who distinguished himself so eminently in the culture of this fruit, in no case suffered the plants to stand nearer each other than eighteen inches, and by frequently stirring the ground between them, he was able sometimes, to use his own words, to produce *trusses of fruit a foot long*. The same advantages would result to other crops, while the superior cheapness would be a still greater recommendation. There are very few persons who cultivate a garden of half an acre, who have not at least one horse at command, by the use of which, in a garden of this size, at least fifteen or twenty dollars, or three quarters of the labor required, if worked solely by hand, would be saved. The cost of hand labor in this country, and the comparative cheapness of the labor of horses, render such a course of culture exceedingly desirable. Rows of currants, gooseberries, raspberries, and quinces, may also extend across the garden, at proper intervals, and be cultivated by a horse.

In order that the plan of the grounds may be better understood, let us suppose a stranger to enter them for the first time. After passing the gate, at *b*, successive portions of the shrubbery, in front and on the right of the house, are presented, as the road gently curves to the house, other parts of the grounds being excluded by the ranges and groups of trees along the garden and stable yard boundary, and from the house to the corner of the lot, at *i*. The two finest views are seen after entering the house; one from the drawing room on the left, where the eye ranges over the rich profusion of shrubbery near the house, between groups of trees, towards the flower beds, at *i*, and the covered seat, at *l*. Great additional beauty would be given to the latter view, if a small piece of water could be placed in front of the seat towards the house, especially if there be considerable descent between them; it would, however, be attended with considerable expense, except in accidentally favorable circumstances. The view from the dining room is towards the garden. Directly beneath, is the parterre, or flower beds cut into the turf on the



PLAN OF A GARDEN.—[Fig. 8.]

lawn, at *k;* beyond this, is the light archway gate to the garden, through which the view extends along the vista formed by the flower beds, *h h*, and terminates at the green house, (or alcove,) at *m*. If the flower beds are of several feet width, an agreeable effect will be produced by planting the smaller flowers near the walk, and the taller further back, and a row of ornamental shrubbery behind, as in the plan. By placing the heavier and darker leaved shrubs near the house, and the lighter beyond, an appearance of greater distance to *m* will be created.

In passing along the foot walk to *i*, an agreeable point of attraction is formed by the arabesque and circular flower beds, beyond which, an arbor or a sun dial might be placed; proceeding onwards, the path curves amid dense trees, a short distance, until the seat, *l*, is seen; beyond this, we pass through the plantation of fruit trees, until we enter the straight walk which leads to the circular roofed seat, at *o*. This walk is bounded on each side, either by a high trellis, densely covered with grape vines, or by fruit trees trimmed flat, so as to resemble a tall freely growing hedge. From *o* to *m*, the walk may be flanked with hedges of evergreens, or by trellises covered with ornamental climbing plants; and if this were arched over head, the impression would be the more striking; when, after passing along such a verdant archway, the full glow of the flower garden, from *m* to *h*, the arched gate, shrubbery, and house, would burst at once on the view.

A small gate is placed at *n*, for the convenience of persons passing on foot to the road in that direction.

The stable yard, which, in the plan, is in common with the kitchen yard, may be separated from it by a light fence, and the whole may be surrounded by an evergreen hedge, closely trimmed inside, and left to grow freely outside. The red cedar, and the American arbor vitæ, or white cedar, would be excellent for such a hedge. If cattle occupy the yard, the ornamental climbers which cover the buildings should be brought from the outside, and trained on the upper part only. Wood decays more speedily when covered with plants; but a barn of brick or cobble stone is of course not affected, and rough wooden boards, which have previously received several coats of lime whitewash, are but little injured.

The change from the ornamental trees, in front and to the left of the house, to the fruit trees at the back, should be gradual. For instance, those ornamental trees which are nearly allied to fruit trees, should be placed near the latter; as the mountain ash, the double-flowering cherry, the Chinese double-flowering apple, the Aronia, and the Siberian crab. These should be occasionally mixed with the strictly ornamental trees on the one hand, and with the fruit trees on the other, so that one may pass to the other by successive gradations.

Those who wish large orchards, especially of apples, will have to provide additional ground for them, where they should be planted in rows, after the usual manner. The part here devoted to fruit, is intended for those kinds only which are of particularly handsome growth, and which could be tolerated on a lawn. Such are most varieties of the pear, and some of the plum, cherry, peach, and a few of the apple. As instances, the Madeleine and Skinless pear, the Early Richmond and Elton cherry, and the Rambo, Strawberry, and Bough apple, may be mentioned.

The cost of carrying such a plan into execution, in the opinion of most farmers, would be sufficient to deter them from the attempt. But in what does the cost consist? The most expensive part is the garden; but a garden, well manured and well tilled, especially if tilled by horse power, is by far the most profitable part of any man's farm. The green house, *m*, may be substituted by a covered seat or arbor, not costing ten dollars. The trellis for grapes and ornamental climbers may be made for fifty cents a rod. The flower beds will cost more or less, according to their style and keeping, but may be made very cheaply. But the half acre of ornamental shrubbery! This need not cost much. Many situations could be found for building a house, where three quarters of the trees and shrubbery needed are already growing on the spot. Supposing, however, this to be otherwise; by judicious selections from our forests and swamps; by free begging from generous neighbors, and by the expenditure of a few dollars at a nursery, for ornamentals, a sufficiency could be obtained for rendering, in a few years, any man's home truly pleasant and beautiful. After the trees are planted, little more is to be done than to keep them hoed round, while small, and to give the grass lawn on which they stand an occasional shaving with the sythe, for the benefit of the horse in the stable. It is true, that by procuring none but rare and costly trees, by keeping the grass constantly shorn perfectly smooth, and by expensive ornamental erections, hundreds of dollars could easily be laid out, but this cannot be recommended to the majority. I will merely observe, before concluding, that I have seen a great many, who considered themselves in quite moderate circumstances, expend more, far more, on unnecessary decorations of their houses, or even on fine carriages and harness, than would buy the land and handsomely plant it, for such a shrubbery and flower garden as the one here mentioned; and who, at the same time, would express ineffable contempt at the idea of laying out five dollars in trees and plants, to render delightful the homes of their children, and add to the sweetness of domestic life. How much are they to be pitied! and how much are their children to be pitied, who, perhaps, from this neglect, may be tempted to seek their pleasures in the midst of dissipation and ruin.

This plan, it will be observed, may be much varied; the ground devoted to shrubbery may be greatly augmented, or greatly lessened; the garden may be made to occupy three quarters; the fruit trees may extend along the walk as far as the front shrubbery; the barn may be placed out of the way entirely, and numerous other alterations made. Where the ground is quite uneven, or irregular in outline, the plan must of course be made adapted to that particular piece of ground, and be perhaps applicable to no other. Judgment must in all cases be exercised. But let none be deterred from attempting improvement, because he cannot reach perfection at once. A little is much better than nothing.

In a future number, I hope to give a list of some desirable fruits, vegetables, shrubs, and flowers, with remarks on their culture, adapted to a farmer's garden and grounds.

J. J. THOMAS.

Macedon, 12 mo., 1841.

SLUGS ON CHERRY AND PEAR TREES.

MESSRS. EDITORS—Fruit growers and nurserymen, in this section of country, have had to encounter, the past season, a most formidable enemy, in the shape of the cherry or pear tree slug, an insect almost entirely unknown in this place until the last two years. This insect, when full grown, is from one-half to three-fourths of an inch in length, of a dark green color, filled and covered with a watery, slimy substance. Like the caterpillar, they feed on the leaves, differing, however, in one respect; they feed only on the upper surface, completely destroying the vitality of the leaf. The pear and cherry appear to be their particular favorites; the plum and quince, however, come in for a share of their spoliations.

A year ago last summer, I discovered them, pretty numerous, on several pear trees in my garden; not enough, however, to do much damage. But the past season, they appear to have increased an hundred or even a thousand fold. Indeed, so numerous have they been in many places in this vicinity, and where no efforts were made to destroy them, that the leaves and fruit of the cherry and pear were completely destroyed, having the appearance of being destroyed by the frosts of winter. The English cherry and the pear tree again soon put forth fresh leaves, but many of the common garden cherries have remained destitute of a green leaf since the middle of July.

I discovered many of them in my fruit garden and nursery, about the 20th of June. In this emergency, it became necessary to cast about for a remedy; the only one I could find laid down in the books, recommended lime and ashes to be sifted over them; but in a nursery,

containing many thousand trees, it proved to be one of much labor. However, it produced the desired effect, for wherever the dry lime or ashes came in contact with the slimy coat of the insect, it produced death; and although it was impossible to destroy all, yet by this means their ravages were greatly checked.

They were the most numerous on the lower leaves of the trees, and appeared to possess but little life, and, in their slow logy motions, resemble the snail; from this, I inferred that, by stripping or cutting off the lower leaves, and the insect once fairly on the ground, they would be unable to find their way up the tree again. The experiment was tried on several rows of young cherry trees; but, on a careful examination the next day, I found that the motions of the little depredators, by hunger, or from some other cause, had become greatly accelerated, and that they were ascending the trees in search of fresh leaves.

Some kinds of pears were much more their favorites than others. The leaves of the common seedling pear would be almost covered with them, while the cultivated kinds, along side, would not have one-fourth as many. On two pear trees, that stood alone in one part of the garden, they were suffered to remain unmolested. On the 4th of July, they had destroyed all of the leaves, and were in trouble for the want of food; that day, and the day following, they were passing up and down the tree, and soon all perished; and, for aught I know, this will be the way that they are to be exterminated, for should they appear and increase the next season, in the same ratio they have the past, the foliage on all the trees will not sustain them for one week, and then they must perish.

As I have already remarked, this insect made its appearance about the 20th of June, and disappeared about the middle of July. A second crop again made their appearance the last of August, but not near as numerous as the first. But there were some peculiarities about this. In one of my nurseries, some fifty rods distant from my other nursery grounds, and containing some 12,000 or 15,000 pear and cherry trees, and which nearly escaped the first attacks in June; yet, in the month of August, was much more seriously affected than any other part of my premises.

A tree of the Boston Epargne pear, trained as an espalier, cast all of its leaves early in July, but soon after put out in full leaf again; and, what is somewhat singular, at this time, (Dec. 15,) after so much snow and frost, yet retains its green leaves, as fresh and fine as its neighbor, the *Mespilus pyracantha*.

It is certainly very desirable that the history of this troublesome insect should be more fully known. I believe the point is not yet fully settled, whether the egg is deposited on the tree in the autumn, or deposited on the leaf, in the spring or summer. I am quite sanguine in the opinion, however, that the egg is deposited on the leaf by some winged insect. I am the more inclined to this opinion, from the fact the slug appears most numerous on the lower leaves; they remain on the leaves from three to four weeks, and then disappear. Many are found dead on the leaves, while a large majority of them fall on the ground.

I have seen no notice of this insect in the columns of the Cultivator, yet it is quite possible that other parts of the country have been visited. Information on the subject is desired; and if this insect has ever appeared as numerous in any other place, let us know something about it, and what we may anticipate from it in future.

Wishing that subscribers to your valuable paper may increase in the same ratio that this insect has, in western New-York, for the last two years, I am, gentlemen, as ever, yours truly, B. HODGE.

Buffalo Nursery, Dec. 15, 1841.

THE ICE MELON.

MESSRS. EDITORS—The seeds of the *Ice Melon*, received by you from the south, and part of which you kindly placed at my disposal, I planted in my garden, with the exception of a few hills, which I distributed to some friends. They fully answered the recommendation given, being far superior to the ordinary melons grown in our gardens, or offered in our markets. The complaints made, that the planting of the citron melon in the same beds with the watermelon, has seriously deteriorated the latter, by giving a thicker rind, and a less juicy and delicate meat, are evidently just to every one who purchases melons grown in the middle states for the northern markets. The ice melon has a rind so thin and brittle, that, when ripe, a gentle pressure of the thumb was sufficient to rupture it, and the flavor was of the richest kind. The melons were not large, whether owing to the extreme dryness of the season, or to the natural constitution of the fruit, I cannot say; but I think it will prove a great acquisition to the lovers of good melons. H. M. GAYLORD.

NEW VEGETABLE.

We find the following notice in a late No. of the Mark-Lane (London) Express:—"At the meeting of the Horticultural Society, on Tuesday, Dr. Lindley drew attention to a new vegetable lately introduced into this country, and grown successfully at Chiswick, which is likely soon to become extensively cultivated for our markets." It is known by botanists as the Oxalis Deppii, and the flavor both of the stalks and the tubers is characteristic and quite distinct from any thing previously known at our tables. It has been grown extensively in Belgium, from whence it has been introduced here."

Domestic Economy.

PREPARATION OF HAMS.

WHEN well preserved, and well cured, there are few articles that are more acceptable at the table than smoked ham, yet it is often so improperly managed that no person possessing any pretension to taste, can swallow it with the least relish. Sometimes the fault is in the animal itself, but much oftener in the salting and smoking; on these, indeed the great excellence of the ham may be said to be depending.

A hog, to furnish the best hams, should not weigh more than 200 lbs. and should be fed on sound food, such as peas, corn, or barley. If he has had some range while feeding, the hams will be so much the better, as the muscular part or *lean* will be better developed, and more firm, than if closely confined. It is probably owing to these causes (the smallness of the Westphalia and Virginia hams, and the hogs while fattening being allowed to run at large,) that the bacon of these countries is so much superior to most others; although much may be allowed for the mode of preparation and smoking. Where a hog weighs from 300 to 500 pounds, the hams will be so large that the process of salting and smoking is rarely so perfect as to thoroughly permeate the mass of meat, and the consequence will be a large part of the center will be unfit for the table. Large hams require a longer time in curing and in smoking them than is usually allowed; the difference in size between small and large ones not being generally sufficiently considered.

There are many ways of curing hams, each one of which has its advocates, and many of which do not essentially differ from each other. We shall give a few of the processes that have become the most noted, that the farmer may choose the one he shall deem most proper or convenient.

Mr. Shelby's method, as given by him after 20 years practice, is as follows:—"I measure a bushel of salt, spread it upon a table, weigh a pound of saltpetre, pulverize it carefully, and mix thoroughly with the salt. This mixture is sufficient for 1,000 lbs. of small meat or 800 of large, to be well rubbed on every piece, and more especially on the fleshy surface. If the weather is mild and the meat small, four weeks will be long enough for the pieces to be packed; but if the weather is cold and the meat large, it should be taken up at the end of four weeks, well rubbed again with salt in case the first has dissolved, and lie two weeks longer."

The following is the celebrated "Knickerbacker Pickle," is equally good for beef or hams, and rarely fails, as we know from experience, of producing a good article:—"Take 6 gallons of water, 9 lbs. of good salt, 3 lbs. coarse brown sugar, 1 quart molasses, 3 ounces saltpetre, and 1 ounce pearlash; mix and boil the whole well, and skim off all impurities." The meat to which this pickle is to be applied should be slightly rubbed with fine salt and lie one or two days, that the blood may be extracted and drain off; then pack it tight in casks, turn on the cold pickle, and let it remain till sufficiently cured for smoking.

Mr, John Cockrill of Woodland, Ala. in the Southern Cultivator, thus describes his method of curing hams. "My rule is to make a strong tea of red peppers, then to mix salt and hickory ashes, say one-fifth ashes; then moisten the mass with the pepper tea, and rub the hams and shoulders on the skin side with about a tea-spoon full of saltpetre to each joint; I then rub in the salt well, then rub the flesh side and pack it with salt, and place the pieces in a trough or tub. I let it remain undisturbed for six weeks; when I knock off the loose salt, take fine pea meal, and rub it completely over the flesh side and hang it in the smoke house. The meal will form a close crust and keep off the skipper fly."

The following is one of the easiest and most expeditious methods of curing and smoking hams, and we know makes a very respectable article. Take a good tight barrel, white oak is the best, take out one head, and invert it over a pan or kettle in which a smoke of hard wood chips, or cobs, is to be kept up for eight or ten days. Water must be kept on the head of the barrel to prevent it from drying. A pickle is made of six gallons of water, twelve pounds of salt, twelve ounces of saltpetre and two quarts of molasses, dissolved together in a kettle, boiled, and the scum taken off. The hams are packed in the barrel, the brine, cold, is turned on to them, and in one week the hams are fit for use.

What is termed the Virginia mode, or in some places, the dry method of curing, as the hams do not lie in pickle at all, is as follows:—for each ham take a spoonfull of saltpetre, (a large tea spoon will do,) pulverize it finely and apply it; rub each piece with salt well on both sides, and pack them in hogsheads with holes bored in the bottom to let off the brine. Let them remain five or six weeks; then take them out, brush off the salt, rub each well with hickory ashes, and hang each piece in the smoke house.

The celebrated pickle called the Empress of Russia's Brine, and much used in Europe for curing hams:—Six pounds of common salt, two pounds of powdered loaf sugar, three ounces of saltpetre, and three gallons of spring water, are boiled together, skimmed, and when quite cold, poured over the meat, every part of which must be kept constantly covered. In this pickle hams of medium size are cured for smoking in two weeks.

A process which gives good hams, and is called the Jersey mode of curing, is as follows:—To every 80 lbs. of ham, take 4 ounces of sugar, 3 ounces of saltpetre, and 1 pint of fine salt. Powder and mix them finely. Rub the hams well with this mixture, and lay them on planks for two days. Then pack them in casks, adding 2 quarts of salt to every 80 lbs. of ham. In fifteen days they may be taken to the smoke house.

Much of the goodness of a ham is depending on the manner in which it is smoked or dried. If the process is carried forward too rapidly, if the meat is not at a sufficient distance from the fire; if from any cause, such as want of ventilation, dampness of smoke house, &c. the meat is kept moist on the surface, and in a wet or dripping state, it is idle to expect good or fine flavored hams. In Virginia, the best hams are not considered thoroughly smoked in less time than two months, not keeping a smoke under them day and night for this time, but making a good smoke under them every morning, or daily. In this way they are cured by the smoke gradually and thoroughly. Indeed the great art in smoking seems to consist in drying the meat by the smoke and not by heat. Hams may be smoked in a much less time than this, but they will not be of as fine a quality, nor will they keep as well. Nothing but materials that will produce smoke free from all unpleasant odors, should be used for smoking hams. Hickory or maple, are first rate; oak or ash will do very well; and the cobs of sound, well cured Indian corn make a good penetrating smoke. Hams are frequently injured by being exposed to too much heat in the process of smoking. To avoid this, at Hamburg, the smoking establishments for both hams and beef, are in the upper stories of three or four story buildings, and the fire for producing the smoke is in the basement part of the building. The smoke is conducted in tubes, and every precaution is used that the smoke shall be thoroughly cooled in its passage. In hanging up hams for smoking, care must be taken that they do not touch each other, and they should invariably be suspended, so that the small part of the ham shall be down; as this will prevent the escape of the juices by dripping.

Various methods have been recommended for the preservation of hams, such as packing them in hay, cut straw, the tow of flax, ashes, fine charcoal, and many other ways. The great object is to keep them cool and dry, and away from flies. Tow will effectually exclude flies; charcoal assists greatly in preserving them sweet; and ashes secure their dryness; but all these plans are open to the objection of making the ham dirty, or leaving it liable to mold. The best method, in all respects, we have known, is to place each ham in a bag of cotton cloth, closely tied up and hung up in a close and dark smoke house. Flies will not infest any place from which light is wholly excluded, and if a smoke is made under them once a week, it will greatly aid their preservation. As a security against flies, some of the establishments that produce hams of fine quality, are in the habit, while the process of smoking is going on, of throwing a few red peppers upon the fire once or twice a week; and a few burnt occasionally in the smoke house, while the hams remain in it, will kill, it is said, all flies that may have found their way into it.

EXTRACTING GREASE SPOTS.

ONE of the best methods of doing this, where drops have fallen on dresses, books, &c. is to place magnesia on the spot, rub it in, cover it with clean paper, and place over this a warm iron. The grease will combine with the magnesia, and be thus removed. Finely powdered chalk will do, but is not equal to magnesia. Repeated operations, or applications of magnesia, may be necessary where considerable grease has fallen.

THE RED ANT.

ONE of the greatest nuisances to the domestic manager is the small red ant. Any of the ant family are tormenting enough, but this is a plague par excellence. The best way to dispose of common ants is to find their beds, and as late in the season as is possible, or during a thaw in winter, open them with a spade, and thoroughly expose them to the changes of the season. This will destroy them. Where the red ant becomes troublesome, it is said that sage leaves fresh picked will keep them away, when scattered in the places it is wished to protect.

REMOVING PUTTY.

GREAT difficulty is frequently experienced, when glass is accidentally broken, in removing the old putty to replace the pane. Moisten the putty with nitric or muriatic acid, and it may be removed at once. Where these cannot be had, strong soap laid upon the putty will in a few hours loosen it from the wood so that the new glass can be set without difficulty.

CEMENTING CHINA OR GLASS WARE.

ARTICLES of China or glass are sometimes fractured, which it is very desirable to mend and preserve. To do this, provide some very finely powdered quicklime in a muslin bag. Take the broken ware, and rub the edge with the well beaten white of an egg. Take the quicklime and sift it thick over the edge rubbed with the egg, press and bind the pieces together, and let the the binding remain several weeks. For coarser crockery, rub the parts with a paint made of white lead and linseed oil, press and bind, and let them remain till the paint is fully dry.

Door latches often work unpleasantly and with difficulty, from want of oiling. A few drops upon them will in such cases operate like magic,

Diseases of Animals.

HOMEOPATHIC TREATMENT OF ANIMALS.

EDITORS OF THE CULTIVATOR—I notice in one of your late numbers, that you reject a communication from David Tomlinson, on the subject of Homeopathia, lest it should lead to a controversy on a subject foreign to the object for which your paper was established. I deeply regret your decision, because no topic can be more truly valuable to the farmer, than the preservation of his own health, and that of his family; and I am abundantly satisfied from the success that has attended this system under my own observation, and the perusal of authentic clinical reports, that it is capable of curing disease more speedily, permanently, and with far less expenditure of strength, than any other whatever. You will observe it has no affinity whatever with the Quack systems of Thomson, Morrison, Brandreth, &c.; its discoverer is one of the patriarchs of the profession, thoroughly versed in Anatomy, Physiology, and all the collateral branches of medical science, and its administrators are, all of them, men thoroughly versed in the learning of the medical schools. Nothing of an empirical character is admitted into the system; every thing is submitted to the test of the most rigidly conducted and frequently repeated experiments; and the result of these has been the discovery of a grand key fact, which admits of a generalization of all other previously discovered facts, without which they are comparatively valueless. My object in writing at present, however, is not to recommend homeopathia to farmers, their wives, or their children; but for their horses and cattle. Deplorable as has been the condition of the healing art in relation to the human family, it has been still more wretched as applied to horses. The leading canon of the veterinary schools has been, that all the disorders of the horse tend to inflammation; hence inflammation must be checked by depletion; then, for all disorders of every name, copious bleedings, drenching cathartics, and powerful diuretics, are indiscriminately recommended. In nine cases out of ten, the horse dies under the treatment, and the owner has the pleasure of paying a long farrier's bill, and the consolation of knowing that the horse died secundem artem. The great work of Youatt is unquestionably the most scientific treatise that we possess on farriery; yet even in this, one cannot read three pages without being sensible that the writer knows little of the subject on which he is treating, and that the chance of saving the horse is as good, if left to the unaided powers of nature, as when treated on the most approved principles of the veterinary art. But Homeopathia offers to the proprietors of horses and cattle unfailing sources of relief and cure. Let the symptons be thoroughly ascertained, and homeopathia possesses remedies which if seasonably applied, cannot fail to cure. Let then, those who have such animals, call on a homeopathic physician; (I am sure he will think it no disgrace to exhibit the triumphs of his art even on a horse;) and I am persuaded one trial will be sufficient to convince them that *homeopathia is no humbug.*

In order to show that the views that I have been advancing, are not merely theoretical, I send you the following case, reported by Dr. Humphry of Philadelphia, who prescribed for the horse at the request of Wm. H. Smith of that city, a graduate of the veterinary college of London.

"On Tuesday, Feb. 16, I was called upon to attend a horse belonging to a merchant of this city, which had been laboring under a disease vulgarly called staggers (Phrenetis,) for ten days past. The first symptoms exhibited were, disinclination for food, restlessness, anxiety, starting as if frightened, which were succeeded by stupor, holding the head low in the manger; each succeeding hour aggravating the disease; the animal became furious, bounding from side to side, the head now elevated, and constant inclination to press forward, then dashing himself violently on the ground in convulsive struggles. These were the symptoms I could gather from the persons who had charge of him, which he at first exhibited. No remedy whatever had been used.

"On arriving at the stable, I found the animal lying on the ground, exhausted by the struggle, his head much swollen from the blows he had inflicted during these severe paroxysms; he was perfectly insensible, pulse hurried and irregular, extremities cold, and every appearance of a speedy dissolution. Dr. Smith feeling assured that any means in his power would be unavailing, determined as a mere experiment, to try homeopathia, not dreaming of the least success. Accordingly four doses of Belladonna, 12th dilution, were administered. One was given at 4 p. m. another at 10 p. m. In *two hours* after giving the first powders the horse rose upon his feet, showed no signs of delirium, and appeard evidently relieved! Still a disposition to coma. On making my visit the following morning, I was astonished to find the horse standing perfectly quiet, having evinced no signs of delirium during the night, pulse rather oppressed and slow, disposition to coma, but showed evident signs of returning sensibility. At 8 a. m. gave the third powder, which, like the others, produced a marked change. At 6 p. m. much better, appetite slowly returning, conscious of every thing going on around, pulse more full and regular, occasionally evincing a disposition to become comatose. Gave the fourth powder. On the next evening gave one, succeeded on the following morning by another. The symptoms of the disease had now become so favorable as to induce me to omit the medicine 48 hours, at the end of which time he relapsed into his former comatose state, without, however, any sign of delirium. Four doses of Belladonna, administered at intervals of twelve hours, now perfected the cure.

"For the contusions on the head, tincture of aznica was applied with success."

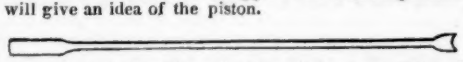
I think no one can read this account of the successful ful treatment of a disorder, which is generally deemed incurable, by means so simple and speedy, without being satisfied that a new and brilliant light has dawned on the paths of medicine. The pages of the foreign journals teem with accounts similar to the above, and in our own country the triumphs of veterinary homeopathia have been equally splendid and decisive. I have now before me a case in which lethargy was cured. Another, of one that had been poisoned with arsenic; another of acute Laryngitis, &c. If the terrible epidemic now raging among the cattle of Europe, should ever be transplanted to our shores, I have not the shadow of a doubt but that it will be speedily and effectually arrested by homeopathic remedies, and thus add another leaf to the chaplet which encircles the brows of the venerable founder of the system. Yours, &c. N. N. D.

Stockport, 11th mo. 13, 1841.

RELIEVING CHOKED CATTLE.

MESSRS. GAYLORD & TUCKER—Having seen in the October number of the Cultivator for 1841, an article from the pen of David F. Lott of this state, on the subject of choked cattle, I wish to give you my remedy for that difficulty. Last spring one of my milch cows fed on turneps was discovered to be choked, and on examination, we found that a large and somewhat long piece of ruta baga had lodged about half way down the throat. To relieve her the cow was cast, a small clevice was put in her mouth, and several young lads from 10 to 15 years of age were urged to put their hands down her throat and endeavor to remove the root. They refused; seeing the cow must soon die, my wife—it was one of her favorite cows—passed her arm down to the shoulder, and drew forth the obstruction, not, however, without having her arm much bruised either by the teeth of the animal or the iron.

I immediately set about devising some easier, and yet safe way of relieving cows or other cattle similarly choked. I went to work and made what I shall call a *piston,* for freeing the throat of cattle from substances that may lodge in them. I made a rod of tough white oak —I should prefer hickory—three feet in length, with a knob on one end 1 1-2 inch in diameter; the end made hollowing, while the other was of the same size for a handle. The middle part was worked down to five-eighths of an inch, so that it might be flexible, or spring, in case the animal should struggle. The following sketch will give an idea of the piston.



I made, and placed my implement in my garret, and in a short time I had an opportunity of testing its merits. A poor man, a neighbor, had his cow choked with a potato, and when I learned her condition, those who had endeavored to relieve her had left her and gone home, satisfied she must die. On my arrival the cow was much swelled, and breathed only with the greatest difficulty. The owner held her by one horn and the nose, while I took the under jaw in one hand, and with the other passed the piston gently down, shoving the potato about six inches, then drew out the rod carefully, and the cow walk-away and began to graze. The whole was done in less than half a minute. The piston should be well oiled before using, and every owner of cattle would do well to have such a rod made against the time of need.

JACOB VREELAND.

Hudson county, N. J. Nov. 1841.

REMEDIES FOR HOOF AIL.

WE have two communications on the subject of the disease in calves, described by Mr. Merrick, p. 176, vol. 8; one from Mr. S. ROWLEY, of Apulia, Onondaga co., who says: "I cannot give the specific cause of the complaint, but rather impute it to the dry, warm season, producing so much heat as to cause inflammation and stagnation. My advice to Mr. Merrick is, to bleed the remaining calves. If it had been done in the fore part of the fall, it would, probably, have done greater service to them. As it regards hoof ail in sheep, I know of no better remedy than to pare all the sound and unsound feet in the flock; then wash them all (i. e. the feet) in a strong solution of blue vitriol. A few applications will effect a cure, if well done. This disease made bad work in my flock, a few years ago, yet I effected a perfect cure in all cases where I applied the solution. For cattle, I used spirits turpentine and sulphur, with success."

"AN AGRICULTURIST," of West Stockbridge, Mass., says: "Having witnessed a number of cases of disease among cattle, precisely resembling the one described by your correspondent, and having, in almost every case, successfully applied a remedy, I venture in part to respond to your call for information. Of its nature and cause, I will say nothing further than that I do not consider it in the least degree contagious, and that cattle of the age and in the condition of those described by Mr. M., are most exposed to its ravages, although I have witnessed its attack upon cattle of almost all ages. The first symptoms of the disease are lameness, when walking, and an almost incessant motion of the limb affected, when standing. The remedy which I have applied, and which I can, with the fullest confidence, recommend to the public, is, to make an incision with a knife in the center of the back part of the foot of the limb affected, between the dew-claw and the hoof. The cutting must necessarily be lengthwise of the foot, to avoid injury to the supports of the limb. This is to be followed by a rubbing of the limb downward until at least a few drops of blood are produced from the wound, when the animal will soon become quiet, and a perfect restoration will be the result."

NOTICES TO CORRESPONDENTS, &c.

COMMUNICATIONS received last month, from A. of the North, D. B. C., L. Durand, Frock & Trowsers, George Hentig, D. J. Curtis, M., Thos. Hunt, Rusticus, Jr., L. A. Morrell, Richmond, J. J. Thomas, An Agriculturist, Za. Drummond, Levi Lewis, James Wilson, C. N. Bement, H. D. Grove, J. B. D., John Martin, A. P. Peck, W. F. Cowan, E. Marks, R. North, Jr., J. R. Moser, N. W. L., A Farmer of Cayuga Co., J. B. Tillinghast, R. Harmon, Jr., B. Hodge, L. B. Langworthy, Wm. Ingell, John A. Jones.

The communication of R. Falconer should have been acknowledged last month. It will appear in our next.

CORRECTION.—In the communication of J. B. D., p. 195, vol. 8, the last line but one, should have been placed two lines above.

REVIEW OF THE MARKET.—Owing to the derangement of the mails on account of the storm, we have not received from our New-York correspondent the Review of the Market for the last month.

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ADVERTISEMENTS of stock, implements, fruit trees, &c., will hereafter be inserted once, and only once, in the Cultivator, the charges for which will be at the rate of $2 00 for each 100 words. No advertisement inserted for less than $2 00, however short it may be.

PLOWS AND OTHER IMPLEMENTS.

RUGGLES, NOURSE & MASON would invite the attention of the agricultural community to their extensive assortment of PLOWS and general stock of Agricultural and Horticultural Implements and machines manufactured by themselves at their CELEBRATED WORKS in WORCESTER, Mass. and kept for sale by themselves at the BOSTON AGRICULTURAL WAREHOUSE, QUINCY HALL, South Market-street, Boston, which with a general assortment of foreign articles in the line, imported by themselves, and many from other approved makers in our own country, offer to farmers and dealers superior advantages.

Communications and orders, addressed to them at either Boston or Worcester, will receive prompt attention.

January, 1842.

COMMERCIAL GARDEN AND NURSERY OF PARSONS & Co. FLUSHING, L. I.

THE Proprietors have constantly on hand, a large and extensive assortment, comprising every desirable variety of Fruit and Forest Trees, Ornamental and Flowering Shrubs, &c. which they are prepared to dispose of on reasonable terms, with the usual discount to wholesale purchasers. They have also a fine assortment of Dahlias and Bulbous Tuberous rooted and Herbaceous Plants, with a very superior collection of China and Hardy Roses, selected from the gardens of the most eminent cultivators in Europe, and tested by the proprietors. In Fruits, every precaution has been taken to procure scions from bearing trees, and the corrrectness of the varieties will be warranted. Peaches and Cherries will be furnished at reduced prices. Those who wish to purchase in the spring, are requested to transmit their orders as early as possible, that they may meet with prompt attention. The nursery is situated eight miles from the city of New-York, with which there is daily communication by steamboat and stage. Catalogues will be furnished gratis, on application. *Flushing,* 12 *mo.* 10, 1841.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN.